











## Environmental Policy Making in Egypt



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## FOREWORD

The environment is a complicated dynamic system with many interacting components. Our knowledge of these components, of the interactions between them, and of the relationship between people, resources, environment, and development has undergone profound evolution over the past two decades. We now realize that unless development is guided by environmental, social, cultural, and ethical considerations, much of it will have undesired effects or even fail altogether. Such "unsustainable" development will only exacerbate the environmental problems that already exist. We all must come to terms with the reality of resource limitations and the carrying capacities of ecosystems. We must pursue plans that will not lead to conflicts over limited resources but instead to a process of sustainable development that meets the needs of the present without compromising future generations.

The goal of sustainable development cannot be attained without significant changes in the ways development initiatives are planned and implemented. These changes will not come about unless there are similar changes in our attitudes toward environmental issues. They will not come about if we do not stop taking the environment and its natural resources for granted, if we do not stop considering the environment as free for the taking. And they will not come about if we do not come to consider environmental protection and environmental security as essential parts of national and international security. Furthermore, environmentally sound development plans will not succeed without public participation and a sense of individual responsibility.

Over the past two decades it has become more evident than ever that environmental problems are not confined within national boundaries but are of regional and often global significance. International cooperation—global partnership—is essential not only to protect the environment but also to set the world on the path to sustainable development.

This book takes Egypt as a case study. It analyzes the changes that have taken place over the past fifteen years in the perception of environmental problems in Egypt, the efforts to establish an environmental policy, and the roles of the various actors in the field, particularly government, parliament, non-governmental organizations, and finally the donor community. The last role is elegantly, thoughtfully, and openly addressed.

This book is intended as an example of how to study a specific problem (the environment in Egypt and how it relates to its politics and economics), how to define the parameters to achieve the goal of the study, and how to reach the goal.

I am sure that readers will trace the intellectual input of the author in every line of the book.

Mostafa Kamal Tolba

*President, International Center for Environment and Development*

*Former Executive Director, United Nations Environment Program*

## PREFACE

The nurturing of the world we live in has become one of mankind's foremost concerns. The environment has become an increasingly important policy issue throughout the world, and Robert Nisbet's prediction that the history of the twentieth century might possibly be the history of environmentalism<sup>1</sup> seems well on the way to being fulfilled.

Egypt is a country with a huge population of 60 million (in 1994) residing in the narrow strip of the Nile Valley and Delta, flanked by the Sahara Desert on both sides. Like many other Third World countries, Egypt suffers from the environmental hazards associated with high population densities and scarce resources. These environmental hazards are often diverse and complex, but broadly speaking they include air, water, and land pollution.

One cause of the air pollution problem is the absence of comprehensive zoning laws, which have led to the more or less random location of industrial units. Many, such as the cement factories in Helwan, are in very close proximity to residential areas. The gaseous emissions of these production units are a health hazard both to the workers and the local residents, not to mention any monuments that might be present in the area.

The water pollution problem also has several aspects. One is the oil pollution of the waters and shores of both the Red Sea and the Mediterranean Sea, which is a direct consequence of increased maritime traffic. Another problem arises from the use of agricultural chemicals, which when washed out by rain or any other runoff water can reach surface waters (lakes, rivers, etc.) and pollute them. Even more serious is the situation that occurs when the polluted runoff seeps into the water table and pollutes it.

Agricultural drainage water that is discharged into the sea also constitutes an important problem, but it is a problem that can easily be turned into an advantage if the water is properly treated and utilized instead of discharged. Also, the large volume of waste water (sewage) often is not prop-



erly treated, thereby posing severe environmental hazards in addition to the pollution of the land by raw solid waste.

Finally, Egypt is faced with the problem of land degradation due to urban encroachment. The volume of rural-urban migration in Egypt is currently at a disturbing annual growth rate of 3 percent.<sup>2</sup> Given Egypt's limited resources, such a high level of urbanization poses an environmental problem of enormous proportions, which is reflected in the huge number of shantytowns that are rising in major cities and in the development of slum areas within the towns and cities themselves.

Notwithstanding these concerns, the environment has only recently developed into a policy issue encompassing legislative measures and a complex and diverse network of political activities both within and outside the government.

The purpose of this study is to analyze and explain the nature, development, and possible implications of environmental concern as a political issue in Egypt. It will explore the interactions between the government, environmental non-governmental organizations (ENGOS), the Green Party, and foreign donors. It will analyze the policy making process and assess leverage power with respect to policy making. Essentially this involves three basic questions: Who makes environmental policy? How is environmental policy arrived at? What is its impact?

\* \* \*

Many individuals and institutions provided assistance during the various phases of the research I undertook to write this book. For funding the research, a special word of thanks is due to the International Development Research Center, especially Dr. Fawzi Kishk, Dr. Iglal Rached, Gilles Cliche of the IDRC regional office in Cairo, and Dr. Necla Tschirgi of IDRC Ottawa, who gave useful advice and encouragement on the research proposal.

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I am extremely grateful to Mr. Salah Hafez, chairman of the Egyptian Environmental Agency, not only for consenting to several interviews and also for attending a subsequent research symposium and discussing my findings with me. This in itself reflects his belief in the importance of policy

research to policy makers. His comments, criticism, and information were very informative and vital to the project.

I also extend my gratitude to Drs. Mohamed El Zarka, Hoda Hanafy, Mohamed Fawzi, and Samia El Sayed of the Egyptian Environmental Affairs Agency for consenting to interviews.

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Last but not least, I am very grateful to my husband, Dr. Mahmoud Gebril, and my daughters, Marwa and Samira. I hope the publication of this work marks at least my temporary return to their lives.



## LIST OF ABBREVIATIONS

ADSZ	Association for Development of Services in Zamalek
AHED	Association for Health and Environmental Development
AOYE	Arab Office for Youth and Environment
APE	Association for the Protection of the Environment
AYE	African Youth of Environment
CCD	Center for Curriculum Development
CIDA	Canadian International Development Agency
DANIDA	Danish International Development Agency
EEAA	Egyptian Environmental Affairs Agency
EEC	European Economic Community
EIA	Environmental Impact Assessment
ELC	Environmental Liaison Center
ENGO	Environmental Non-Governmental Organization
FEA	Friends of the Environment Association in Alexandria
FEDA	Friends of the Environment and Development Association
GEF	Global Environmental Facility
GTZ	German Agency for Technical Cooperation
ICU	International Cooperation Unit
INGO	International Non-Governmental Organization
IYF	International Youth Federation for Environmental Studies and Conservation
JICA	Japan International Cooperation Agency
MOSA	Ministry of Social Affairs
NAPOE	National Association for the Protection of the Environment
NDP	National Democratic Party
NGO	Non-Governmental Organization
ODA	Overseas Development Agency
RECA	Third World Association for Renewable Sources of Energy and Environment Conservation

TCOE	Technical Cooperation Office for the Environment
UNDP	United Nations Development Program
UNEP	United Nations Environmental Program
UNESCO	United Nations Economic and Social Council
USAID	United States Agency for International Development



# Introduction

## Conceptual Framework

Environmental policy is a set of "decisions taken by the government with the objective of setting limits and directing the behavior of the citizens to the conservation, protection, and upgrading of natural resources and the environmental services available to the society."<sup>1</sup>

A modified policy cycle approach will be used to examine the policy making process in Egypt. This model includes policy initiation and agenda setting, decision making, and policy impact or assessment.

### POLICY INITIATION AND AGENDA SETTING

According to Guy Peters, "A problem must be accepted by the policy making system as part of the agenda before a policy choice can be made, i.e. it must be deemed amenable to public action and worthy of the attention of policy makers."<sup>2</sup> Regarding this stage, the book will identify the actors who initiated the issues. This includes the state, non-governmental organizations, the Green Party, and external donor agencies.

Agenda setting is a political activity that illustrates the amount of control various parties have over policy choices. Therefore, an understanding of how the existing environmental agenda was set will help explain how political power in Egypt is exercised and by whom.

### POLICY FORMULATION

After a political system accepts a problem as part of its agenda, it must develop a mechanism for solving that problem. Policy formulation involves setting goals for policy, creating specific plans and proposals for those goals, and selecting the means whereby such plans can be implemented.<sup>3</sup>

The National Action Plan and the Environmental Protection Law are the Egyptian government's attempts to respond to the nation's environmental problems in a comprehensive way. Analysis of the environmental action plan will shed light on the government's environmental priorities and goals and the means to achieve its plans. Also, analysis of the law will help clarify

the legislative and institutional framework surrounding the implementation and enforcement of environmental policy in Egypt. Consequently, understanding of both the National Action Plan and the Law will improve our knowledge of the extent of environmental concern in Egypt. A better understanding of the policy can help identify areas that need to be reformulated and consequently help in improving the quality of environmental policy in Egypt. The resultant policy in Egypt may become a model for other developing countries.

## DECISION MAKING

Does the decision making process in environmental policy differ from decisions made in other policy areas? Does the structure of the Egyptian government and its characteristics (a semi-presidential/semi-parliamentary system with a strong executive authority, weak legislative authority, and weak political participation) affect the decision making process in the field of environment?

Environmental problems in Egypt have all the elements needed for a crisis situation, including a threat to core values, a short time duration, and the need for quick decisions. Environmental degradation is a threat to core values (development and the well-being of the Egyptian people), and it increases rapidly unless decisions are made quickly. The fundamental question, then, is whether the decision making process is truly compatible with the urgency of the problem or whether it is just a reflection of bureaucratic and organizational conflicts.

## POLICY ASSESSMENTS (OR POLICY IMPACT)

All of the procedures involved in evaluating the social impact of government policies, in judging the desirability of these impacts, and in communicating these judgments to the government and the public can be called "policy assessments." The researcher's main concern is to assess the effect of the government's environmental policy on its citizens. Because environmental policy involves trade-offs between environmental values, technical feasibility, and economic growth, it is very important to analyze its impact within a broader context, in relation to the National Development Plan and the government's limited resources.

The study of environmental policy making is a study of public policy. In this regard, it examines the interaction between state and society and to what extent the policy is a reflection of that interaction. Moreover, it looks at how the characteristics of Egypt's political system, especially in the transition from an authoritarian regime toward a democratic one, affect environmental policy making.

The importance of this study lies in the insights it will provide into the performance of Egyptian public policy in this hitherto unstudied area. It will also help Egyptian policy makers improve the management of the country's natural environment and promote the development of more effective policy formulation. In addition, the study will provide research that can be relevant to other developing countries facing the same resource constraints and environmental conditions. The results will be equally important to the industrialized nations in their efforts to assist developing countries in addressing environmental issues that affect the entire globe.

# Chapter 1

## Policy Initiation and Agenda Setting

The initiation of a policy usually comes as a reaction to certain problems that need to be solved. Not all problems or issues reach the political agenda, but only those few issues that succeed in attracting the attention of policy makers, forcing them to search for policies and make decisions to solve these problems. The environment is a case in point.

### THE RISE OF ENVIRONMENTAL CONCERN AS A POLITICAL ISSUE

Most studies of environmental consciousness in the industrialized world tend to explain the rising of environmental concern by relying on one or both of the following explanations. First is the contention that concern for the environment is a consequence of broad changes in mass belief systems. These, it is held, led to a shift from an overwhelming emphasis on material values and physical security to greater concern with the quality of life. This interest in "post-materialist"<sup>1</sup> values has made people throughout the Western world more concerned with environmental issues.<sup>2</sup>

A second, but not mutually exclusive, view argues that exposure to environmental hazards produces high environmental concern. According to this outlook, the industrialized world became concerned with the environment because growing environmental risks were perceived by the public at large, and this has led to popular demands for corrective and preventive actions.<sup>3</sup>

For instance, the publication of Rachel Carson's *Silent Spring*<sup>4</sup> raised the awareness of the American public regarding the dangerous use of chemical pesticides, influenced the development of the Green movement, and forced policy makers to put the issue on the agenda. Consequently, they formulated policies that prohibited the use of DDT in agriculture and gave the Environmental Protection Agency the power to regulate the use of pesticides.<sup>5</sup>

In Japan, environmental policy was initiated as a result of public protest against four pollution incidents: mercury poisoning in Minamata and Niigata that killed and crippled many people; air pollution causing bronchial asthma

in Yokkaichi; and cadmium poisoning in Toyama prefecture, resulting in bone diseases.<sup>6</sup> The Japanese government was forced to pass laws to control and punish polluters, and it has also created an environmental protection agency.

Such explanations for the rise in environmental concern are not applicable in the case of Egypt. On one hand, Egypt is a poor country that is still struggling to move away from the status of a "less developed country." It can hardly be argued that Egyptians have satisfied their basic needs and that their concern with the environment reflects a change in their value system such as a desire to satisfy post-material demand. On the other hand, the second explanation for Western environmental consciousness assumes a high level of awareness of environmental hazards and their impact on human life. This awareness is not widespread among Egyptians. On the contrary, in today's Egypt those who are the least likely to be exposed to environmental hazards are the most concerned with the environment. This seems attributable to factors related to socioeconomic status, which in turn have a direct bearing on education and levels of interest in public affairs.

Unlike the industrial states in Europe and the United States, where environmental concern started through "grassroots" movements and managed within a relatively short time to influence decision makers and to put environmental issues on national and then international political agendas, in Egypt it was the state that first demonstrated interest in environmental issues. Though suffering from poverty and deeply concerned with the process of economic development, the GOE gave environmental concern a high status on its agenda.

Environmental protection acquired an important position on the government's policy agenda for three reasons. First, the willingness of foreign donors to provide financial support for environmentally sound projects encouraged the GOE to meet certain environmental standards. Environmental problems are common to both developed and developing countries. This is due to the fact that environmental degradation tends to extend beyond national boundaries and no one country alone can deal with these problems. Consequently, the need for a global approach based on international cooperation became evident. As a result, much of donor assistance now gives explicit attention to environmental issues in Third World countries. The Egyptian Environmental Affairs Agency (EEAA), for instance, benefits from external funding sources such as the World Bank, the United Nations Environmental Program (UNEP), the United Nations Development Program (UNDP), and other foreign assistance programs like those of the Canadian International Development Agency (CIDA), the Danish International Development Agency (DANIDA), the United States Agency for International



Development (USAID), the Overseas Development Agency (ODA), and others.

Second, in pursuing a nationwide strategy for development, the Egyptian government has come to acknowledge the indispensability of environmental protection as a requisite for sustainable development. Indeed the GOE has realized that sustainable development is vitally necessary to deal with the imbalance between the country's overpopulation and its limited resources. In short, policy makers seem to recognize that development and environmental protection are mutually dependent.

Third, the Egyptian government desires to be a role model for developing countries and maintain a position of leadership in the region by following the international community in its environmental concerns. Egypt's active participation in regional and international activities related to the environment establishes the sincerity and depth of its environmental concern. In fact, Egypt has participated in all declarations related to the environment since the Stockholm Declaration of 1972. Egypt has also ratified thirty-four conventions relating to environmental activities.<sup>7</sup> Egypt also took part in the African Ministerial Conference of the Environment, the Council of Arab Ministers Responsible for the Environment, the Mediterranean Ministerial Council for the Environment, and the Organization for Cultural and Technical Cooperation.<sup>8</sup>

#### THE STATE AS AN ACTOR IN ENVIRONMENTAL POLICY MAKING

Given the rise of environmental protection as a policy consideration, the state in Egypt has relied on three basic strategies for institutionalizing this concern: establishment of a coordinating body for formulation and management of environmental policies; development of a national action plan for execution of environmental activities; and creation of the legal framework necessary for the implementation of environmental policies.

#### The Egyptian Environmental Affairs Agency

Although the EEAA was established in 1982, the idea of having a body in charge of environmental affairs dated back to the 1970s. In 1970, Dr. Mostafa Tolba, the Egyptian scientist who later became the executive director of UNEP, was chairing a committee from the Academy of Scientific Research and Technology to prepare Egypt's position in the Stockholm Conference of 1972. The committee, through its internal discussions, came to feel the need for an institutional framework to deal with environmental problems. At the same time, there was an idea to establish an Environmental Institute within the Faculty of Science at Ain Shams University. These ideas were transmitted to the National Committee for the "Man and Biosphere Project"

sponsored by UNESCO. The committee, headed by one of Egypt's most famous scientists, Dr. Mohamed El Kassass, studied the issue and issued a report in which it called for:

- The establishment of an environmental agency to be responsible for developing environmental policies and plans.
- The creation of a monitoring system.
- The designing of environmental education programs.
- The encouraging of universities to have environmental training centers to train environmental cadres.<sup>9</sup>

The first attempt to create a body in charge of the environment took place in 1980, when a ministerial committee for environmental affairs was established. The committee consisted of ministers of the environment-related ministries. It was empowered by executive functions to set plans and implement environmental projects and it was to report to the Council of Ministers. After a few months, the work within the committee stagnated because of the difficulty of bringing all the members together. Consequently, a new committee was established to coordinate environmental activities, and it was to report to the prime minister.

Since then, the debate around the structure of the body in charge of environmental activities and the authority that will be delegated to it has never ended. The debate centers around whether the body should be an agency for environmental protection or a ministry for the environment, and whether the agency should be empowered with executive or coordinating authority.

On one hand, having a strong central body with executive power could be very useful in terms of setting plans, implementing projects and having the power to enforce environmental regulations and review environmental impact assessment. On the other hand, it would create a huge bureaucracy that might compete, contradict, and overlap with other ministries' authority and interests. It would also necessitate the creation of an environmental cadre to be employed in the agency, in addition to the financial capability to implement projects. While the creation of a coordinating body would not facilitate the implementation of projects, nor the enforcement of regulations, its plans would be implemented by other ministries. Consequently, the establishment of a huge bureaucracy with all its problems will be avoided.

While Dr. Fouad Mohi Eldin, prime minister of Egypt during the 1980s, was willing to create a ministry for environmental affairs, he was advised by Dr. El Kassass that it would be preferable to start with an agency or a coordinating body. Finally, presidential decree no. 631 of 1982 was issued and the Egyptian Environmental Affairs Agency was created.

The EEAA was designated as the coordinating body for environmental policy making in Egypt. The main objectives of the EEAA, as spelled out in article 3, include:

- development of priorities and follow-up on the implementation of approved plans and programs;
- formulation of a National Environmental Protection Plan;
- providing the concerned authorities with the instructions and information necessary to implement this plan;
- establishment of environmental quality standards that development enterprises in Egypt should adhere to;
- organization of mass media campaigns to promote environmental awareness amongst the public.<sup>10</sup>

Since its inception, the EEAA has passed through two stages of structural reform, the first one in 1985 and the second as a result of ministerial decree no. 30 of 1991<sup>11</sup> (see figures 1 and 2). Comparing these two structures, it is clear that the first structure was very general and relied on only a few offices. The second structure was more comprehensive, increasing the number of offices from seven to fifteen and increasing their level of specialization. This change reflected to a great extent both the growing concern with the environment and the emergence of a more sophisticated understanding of Egypt’s environmental problems. Moreover, the 1991 organizational structure included an office for “international relations” respon-

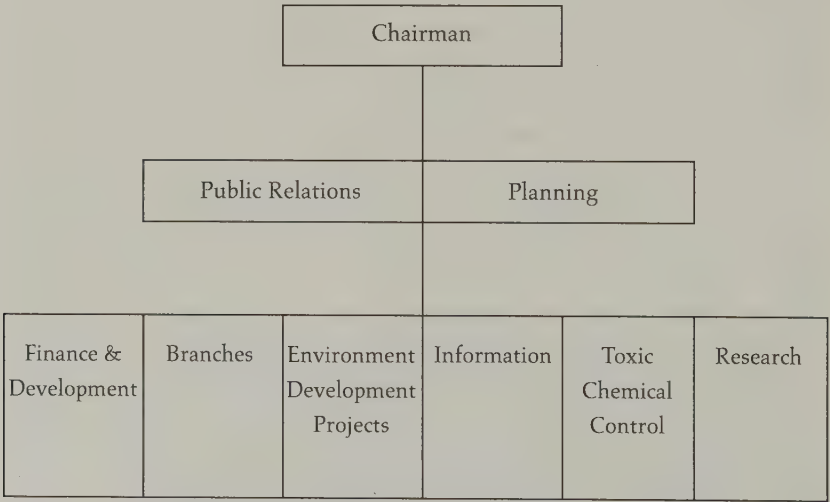


Figure 1. EEAA organizational structure, 1985.

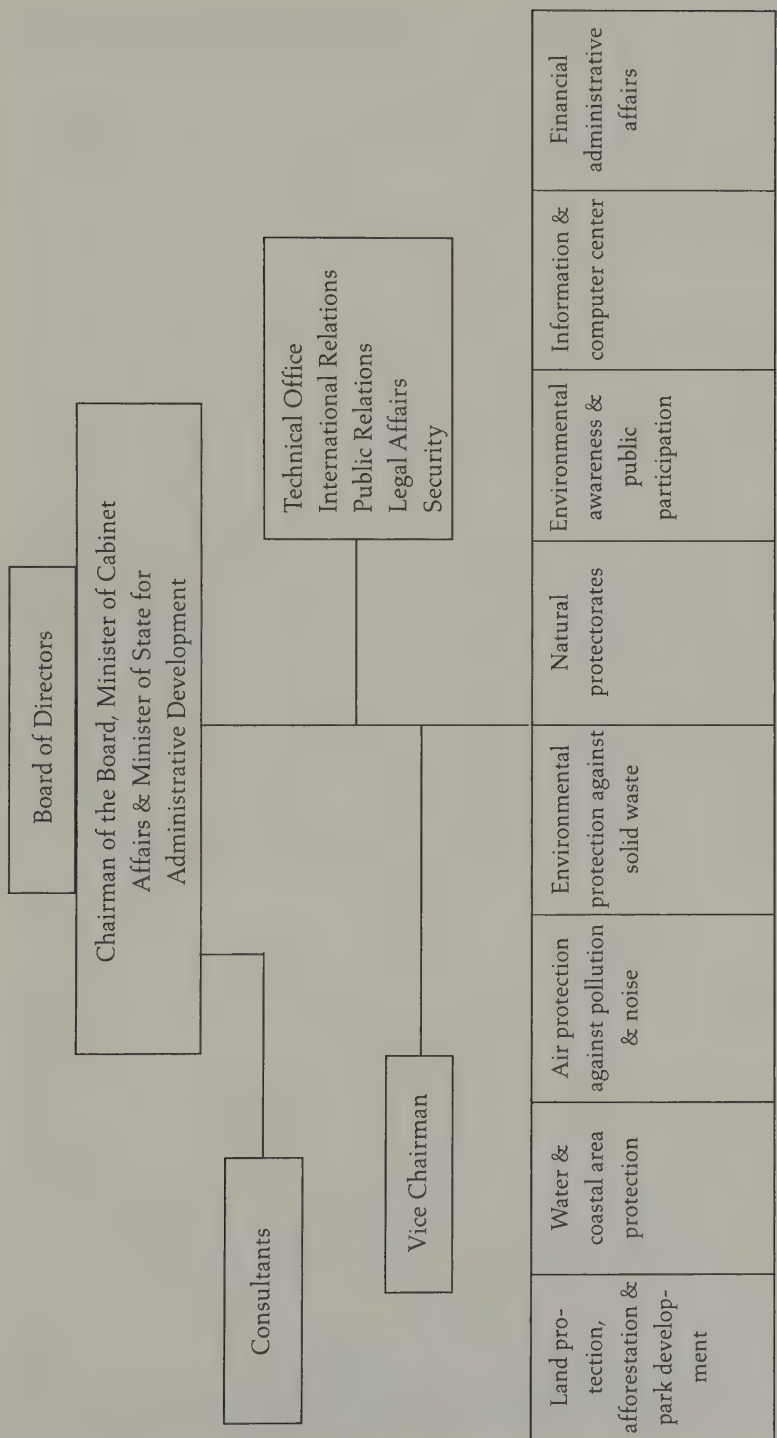


Figure 2. EEAA organizational structure, 1991.

sible for dealing with international assistance programs and international organizations concerned with the environment.

As part of the 1991 structural enhancements, a Board of Directors was established, headed by the then minister of cabinet affairs and administrative development, Dr. Atef Ebeid. It included experts on environmental affairs and representatives from various ministries and official bodies concerned with the environment. The purpose of this arrangement was to allow the EEAA to play the role of coordinator among government agencies, or among the actors on environmental issues, and to guarantee their full participation and cooperation in environmental policies.

While the 1985 organizational structure emphasized the role of the agency's branches or offices in the provinces, the 1991 structure excluded them from the organizational chart. A possible reason for this may be the fact that the 1991 structure was established along sectoral lines.

As a further addition in the 1991 structure, a representative for non-governmental organizations was included on the Board of Directors. Occupying this post during the early 1990s was Mr. Said El Tawil, head of the Businessmen's Association. His appointment may have been due to the fact that the Businessmen's Association, though not heavily involved in environmental issues, has a strong networking system and close connections with external actors. Mr. Tawil's appointment also reflected the government's wish to bring the private sector into the mechanism of environmental policy making.

When Law No. 4 of 1994 goes into effect, a third stage of restructuring will begin. In this phase, the EEAA will maintain its coordination role in addition to receiving new executive functions.<sup>12</sup>

### *Functions of the Agency*

*Coordination function.* The new law of 1994 stresses the coordinating role of the EEAA, as emphasized throughout prior discussions in the assembly. The discussion reflected the fear of a number of ministers that the new agency might constitute a threat to their own power if it was to infringe on their authority and budgets.

According to the law the agency will create a comprehensive framework, the purpose of which will be to regulate the behavior and actions of all authorities or persons involved in environment-related activities.

This framework will permit the agency to:

- Draw the general policy and prepare plans required for the preservation and the development of the environment;
- prepare national plans aimed at achieving such goals;



- contribute to the formulation of legislation dealing with environmental problems;
- participate in preparing the plan to protect against leakage of toxic materials and wastes;
- cooperate with the Ministry of International Cooperation to ensure that projects funded by donors meet the environmental safety regulations.

*Executive function.* The executive and implementing role of the agency is reflected by the following:

- The EEAA will have a status of "Public Juridical Personality."
- The agency will follow up the implementation of plans it initiates, in coordination with the concerned administrative authorities.
- It will have the power to implement pilot projects, prepare its budgets, and draft maps for urban areas and areas planned for development.
- It will work with the Ministry of Education to set training programs and various curricula in elementary education, as well as design citizens' environmental education programs and contribute to their establishment.
- It will prepare an annual report on the "State of the Environment in Egypt" to be submitted to the president of the Republic and to the cabinet ministers. It will also send a copy to the People's Assembly.
- The agency will set procedural guidelines for Environmental Impact Assessments.
- It is also to set standards to ensure that the permissible limits of pollution are not exceeded and to monitor compliance with these standards.

### *New Structural Organization of the EEAA*

The agency will be headed by a Board of Directors. The board will be chaired by minister of state for environmental affairs, currently Dr. Atef Ebeid. Other seats are allocated as follows: The executive director of EEAA as deputy chairman of the board; representatives of six ministries concerned with environmental activities; two experts in the field of the environment; three members representing environmental NGOs; an official in the Environmental Affairs Agency; three representatives of the public business sector; two members to be chosen from universities and scientific research centers; and the head of the Legal Department concerned with the State Council.<sup>13</sup>

In comparison to the previous board formats, of 1985 and 1991, the new board is more representative of the environment community on both the state and societal level. It also reflects a dynamic process to include more actors in the decision-making process in the area of environment. In fact, the majority of the board's members will be drawn upon from outside the agency. This reflects the new thinking of Salah Hafez, the chairperson of EEAA, who stated, "If the Agency would like to coordinate between different ministries, and if it would like them to abide by the Agency's policies, the only solution is to include them in the decision-making process. Once those ministries participate in making policies they will enforce and implement the agency's regulations."<sup>14</sup> Moreover, the level of popular participation has been increased because the number of representatives of environmental NGOs has been increased from one to three representatives. The ratio between NGOs and public sector business on the board also changed from 1:3 to 3:3, which not only enhances the presence of NGOs but also puts them on an equal footing with the business sector. The new composition of the board reflects the nature of the environment as a multidisciplinary issue that needs the cooperation of politicians/policy makers, scientists and NGOs.

The new structure of the EEAA is organized around five major sectors: Environmental Management, Environmental Quality, Information and Public Awareness, Conservation Parks and Biodiversity, and Technical and Administrative Affairs (see figure 3). The head of each sector, nominated by the minister in charge of the environment and the Chairman of the EEAA, will be appointed by Presidential Decree.

*Environmental Management.* This sector includes departments for environmental impact assessment (EIA), hazardous substances and waste management, coastal and maritime zones management and environmental development. It will be in charge of managing natural resources and carrying out environmental impact assessment.

By virtue of the Law No. 4 of 1994 (chapter 1, part 1), the EEAA will be responsible for reviewing EIA statements submitted to the agency by concerned administrative authorities. It will give its advice and evaluate proposals within sixty days following the receipt of an evaluation of impact. In case of refusal to grant a license, the owner of the facility may appeal, within thirty days, to a committee formed by the ministry in charge of the environment (article 21).

This new responsibility implies the need to develop the capabilities of the EEAA, i.e., the emphasis on EIA creates a demand for more qualified staff capable of managing the review process. In this regard, the Danish International Development Agency (DANIDA) has provided assistance in

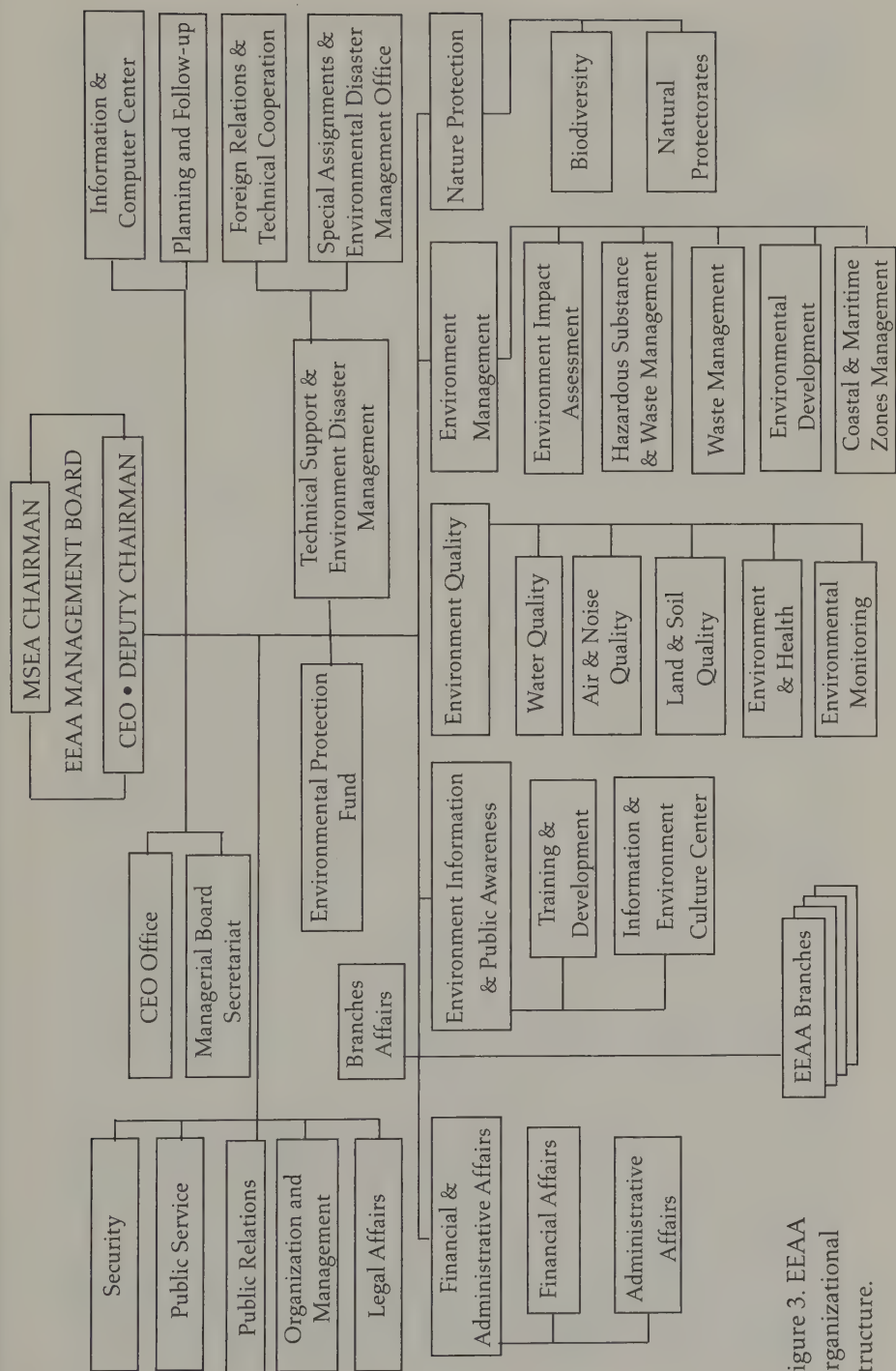


Figure 3. EEAA organizational structure.

setting up EIA guidelines and in establishing an internal review system. DANIDA further provides EIA training to the staff of relevant departments in the EEAA (Environmental Management and Environmental Quality). This function will also be carried out in coordination with other donors' activity pertaining to EIA, such as the British Overseas Development Agency (ODA) training project for line ministries in EIA.

*Environmental Quality.* The objective of this sector will be to maintain the quality of the environment, and as such will be medium-oriented, i.e., it will pertain to air (and noise), soil, and water quality.<sup>15</sup> Its responsibility includes the monitoring of the environment, and it requires factories to record and register all wastes resulting from their activities in a manifest to be subjected to external auditing. A department on Health and Environment is also included in this section.

*Information and Public Awareness.* Recognizing the importance of environmental awareness and environmental information, article 5 of the law gives the EEAA the authority to periodically gather and publish national and international information and data on the state of the environment.

Law No. 4 also entitles the EEAA to set up environmental education programs and to participate in their implementation. For that purpose the Information and Public Awareness Section has been established in the new structure of EEAA. This section is responsible for raising public awareness and for implementing the environmental education program set up in cooperation with DANIDA. The program includes the development of awareness campaigns with government agencies, NGOs and the mass media, as well as television programs and public lectures.

Article 5 of the law allows the EEAA to participate with the Ministry of Education in the preparation of training programs for the protection of the environment within the context of different curricula in primary schools. As a result of this article, the agency will be involved in the development of teaching material and in the training of school teachers. The law also mentions the possibility of having public hearings for projects involving EIA as a tool to spread information to the people.

*Technical and Administrative.* An important responsibility of this sector is to administrate the Environmental Protection Fund. This department will administer the special fund created by the new law (article 14) to finance some environmental projects, especially in areas where responsibilities are not clearly defined.

The fund will also be used for creating natural preserves, funding environmental studies, participating in funding projects carried out by NGOs and local government, and transferring low-cost technology.

The Environmental Protection Fund will be financed by:

- endowments, aid and donations extended by national as well as foreign organizations for the protection and development of the environment;
- resources of the Natural Preserves Fund, as prescribed by Law No. 102 of 1983;
- fines and compensation for damages to the environment;
- amounts to be allocated to the fund from the state's budget.

Also, the law stipulates that the minister of state for environment may establish EEAA branches in the governorates. As of yet, it has been decided to include eight branches within the new structure of the EEAA to cover the following areas: Greater Cairo, Alexandria, Eastern Delta, Southern Delta, Middle Delta, Southern Upper Egypt, Northern Upper Egypt, and the Red Sea.

Given that the EEAA is limited to only a coordinating function, it can be anticipated that some problems will exist between these branches and their headquarters, and between these branches and the Environment Management Units in the governorates (which are under the direct authority of the local government). These local government units are perceived as the executive hand of the government, executing on a local level the national plans of the ministries. This formula cannot be expected to function in the case of the EEAA, however, since it lacks executive power. Coordination between the EEAA, its branches, and the local Environment Management Units thus needs to be greatly enhanced if environmental policy is to be implemented efficiently.

In the final analysis, although the structure of the agency was formulated around the concept of a small central agency with branches in the governorates in order to facilitate a trend towards more decentralization, it is necessary for the agency and the government to reconsider the relationship between these branches, the agency, and the local government. The potential problems resulting from division of labor and crossing lines of authority are too critical to be ignored.

### The Technical Cooperation Office for the Environment

In addition, the Technical Cooperation Office for the Environment (TCOE) was created. TCOE is a nationally executed UNDP project affiliated to the Egyptian Environmental Affairs Agency (EEAA). TCOE is responsible for preparing environment-related projects and programs. This is done by co-



ordinating between the national agencies responsible for implementation of environmental projects and the donor community providing technical assistance and financial support.

The office's responsibilities and mandates for the implementation of these programs and project proposals are summarized in the following:<sup>16</sup>

- Translating the Egyptian Environmental Action Plan (EAP), May 1992, to well-designed and -formulated, readily implementable programs and project proposals related to environment.
- Initiating, mobilizing, and coordinating bilateral and multilateral donors' resources.

The priority programs and projects constituting the substance of TCOE's work are accordingly set within the framework of the EAP and are in accordance with:

- the directives of EEAA, being the national coordinating body on environmental issues and the implementing agency of natural protectorates, afforestation, and environmental pilot projects.
- the needs of the line ministries or implementing agencies, provided that an agreement with or approval by the EEAA is in place.
- interests of donors to provide support in specific environmental fields, sectors, and/or geographical areas. In this context, TCOE, being in close contact with the donor community, plays a key role in proposing priorities which would most likely receive donors' support.

Regarding the structure of TCOE, the office is headed by a director, Dr. Tarek Geneina, who is assisted by two deputies, and there are about twenty-six staff members. Though there is no clear-cut division of labor or organizational structure, one can identify three divisions, the first of which is in charge of urban environment, solid waste management, and cultural heritage. This division is headed by one of the deputy directors, Eng. Yasser Sherif, who holds a master's degree from Harvard University. The second division is in charge of air pollution and energy conservation programs, and is headed by Dr. Walid Gamaeldin, an engineer who earned his Ph.D. in Environmental Management at UCLA. In addition to those divisions, there is a Dane who works as an advisor to the director of TCOE and is in charge of industrial waste and agricultural development programs. He is also in charge of the technical unit, which deals primarily with donors' co-operation.

The TCOE has an annual plan that identifies a set of pilot projects (see appendix 1). These projects are identified according to problems that face

the country. These projects are implemented by TCOE in coordination with ministries or agencies concerned. In this regard TCOE is acting as a coordinator between donors who will finance the projects and governmental or executive agencies concerned.<sup>17</sup>

Although TCOE is staffed by active professionals, the idea of creating an external body to assist the main institution proved to be problematic in other policy areas. In the education sector, for example, overlap and conflict occurred between an already existing department of curriculum development in the Ministry of Education, and another similar external department, the Center of Curriculum Development (CCD), established by the USAID. Overlapping of tasks and responsibilities between similar departments is one of the often-occurring problems.

In terms of social composition, the TCOE is an elite unit staffed with the sons and daughters of Egyptian elites, who acquired Western educations and are fluent in foreign languages.

Although, theoretically speaking, the TCOE was set up to assist EEAA in dealing with foreign donors and it was perceived as a flexible unit that can cut red tape and minimize bureaucracy, the establishment of TCOE as an external organ outside EEAA creates a sense of tension between the two bodies, between those who work in EEAA, who are older, more experienced, and paid less (because they are paid according to the government's standard of salaries), and those who work in TCOE who are younger, less experienced and paid more (because they are paid by UNDP at private market rates).

## SOCIETAL ACTORS

In addition to the state, societal actors also play a role in environmental policy making. In Egypt there is the Green Party, that tries to influence environmental policy making, in addition to a number of non-governmental organizations concerned with the environment. The major role of the latter is to try to raise people's awareness of environmental issues.

### Green Party

Functioning within Egypt's formal political system, yet not as a governmental organ, the Egyptian Green Party is the only "officially recognized" party that exists devoted to environmental issues. Although most of the industrialized countries have "Green" or environmentalist parties that are, or have been, represented in the legislature, Green parties are still in their infancy in developing countries. The Green Party in Egypt is no exception. In fact, the party's establishment, the first such event in the Arab world,

was a clear example of a growing societal concern, and of an effort to influence government environmental policies.

In an attempt to explain the emergence of the Greens in Europe, Rudig and Lowe argue that "the development of the Greens cannot be understood without consideration of the emergence of particular issues, protest movements and the concrete circumstances of party formation"<sup>18</sup> and that any adequate analysis of Green politics should go beyond the traditional study of voting behavior. In the same vein, the Green Party in Egypt will be analyzed by looking at the formation of the party, its ideology, objectives, and membership, and its relations with the government and environmental associations (NGOs), in the belief that "electoral success [or lack of success, in the case of Egypt's Greens] might not be the sole purpose, nor a precondition for continued existence, nor indeed the only determinant of a party's wider political impact."<sup>19</sup>

All Green parties were created as a result of a particular environmental problem: nuclear energy in Germany, new airports in Japan, hydroelectric dams in New Zealand, or threats to the wilderness in the United States. This is also true in Egypt.

The Green Party in Egypt was established as a reaction to a contaminated shipment of food that found its way to the country from West Germany in 1987. The issue was politicized by the Greens in Germany. Egyptian newspapers covered the case, and some commentary expressed the advisability of establishing a similar party in Egypt to protect the environment and the people from pollution. Abdel Salam Daoud's column in *Al-Akhbar* newspaper became the platform for those interested in establishing a Green party. Eventually, concerned activists formally requested approval from the "Parties Committee" for the establishment of the Green Party. When the committee rejected the idea, the party activists took the case to court, and the party was legally recognized on April 14, 1990.<sup>20</sup>

Unlike the European Greens, Egyptian Greens consider themselves not so much a political party as the conscience of the nation. They view their mission as protecting the environment from pollution.<sup>21</sup> In this respect they can be considered a policy party, whose main interests lie in the implementation of their policies regardless of whether their party is in power, as opposed to a power party, whose principal aim is to govern. This was very clear in the party performance in the legislative election of 1990, where the party had seventeen candidates nationwide, knowing very well that those candidates would never make it to the assembly. Nevertheless the party decided to participate in order to explain its policy proposals and to attract supporters.<sup>22</sup> The party's program emphasized the relationship between environmental protection and economic development. Egyptian Greens view

poverty as the worst form of pollution and urge continuous economic development and environmental awareness as the solutions.

Unlike the industrialized world, where the Green Party members tend to be young, well-educated and liberal to radical in political orientation, in Egypt Greens are older, conservative academics and are scientists more than activists. While in most of Europe the Greens moved from student politics to Green politics, only 25 percent of the Egyptian Greens are under age forty, and only 8 percent of the 1,500 members are women.<sup>23</sup>

The composition of the Egyptian Greens tends to confirm the correlation between the level of education and the Green movement that has been found in many studies in other contexts.<sup>24</sup> In terms of the relation between age and membership in Green movements, the general rule, as most studies show, is that Green values are associated with youth. Nevertheless the Egyptian case tends to find a less significant correlation between these two factors. In this regard, it conforms to the patterns found in studies by Laura Lake on the United States<sup>25</sup> and Addbjorn Knutsen's on Nordic countries.<sup>26</sup>

Critics of the Egyptian Green Party explain the lack of enthusiasm on the part of young Egyptians to join the Greens in terms of factors characterizing the party itself. The Green Party, in their view, failed to attract popular support because it was organized by people with no political experience, is seriously handicapped by internal disorganization and crippling underfunding, and has a low-profile public image.

Supporters of the party do not deny that it needs a lot of publicity or that most Egyptians have not heard of it. On the contrary, and added to this, they see the party's major problem as its lack of financial capability. The party does not have the financial means to publish its own newspaper or to carry out projects on its own. Even when the party decided to participate in the parliamentary election in 1990, its candidates were chosen for their ability to finance their own campaigns.<sup>27</sup> In its defense, supporters of the party blame Egyptian legal requirements that prohibit opposition parties from accepting foreign donations. Unlike other environmental associations, the Green Party cannot accept money from UNEP or international NGOs or even other Green parties.<sup>28</sup>

The party is trying hard to improve its financial position. One may look at the party's campaign against smoking in 1992, when the party invited a Swiss physician to help the participants quit smoking and charged every participant \$100, as a fund-raising attempt as well as a bid for publicity.

The party's failure to win parliamentary seats has limited its ability to have an impact on environmental policy and to influence the government from within the system. Having failed to win its candidates seats in the parliament, the Green Party is now trying to recruit some current mem-



bers of the legislature. The party's composition and its type of leadership to a great extent affect its tactics. The Greens are very passive, slow, and always prefer to get governmental approval before undertaking any popular activity. Abdel Salam Daoud, then the leader of the party, had to obtain permission from the minister of interior for a march to protest against air pollution in Cairo's outlying Helwan district.<sup>29</sup>

This is understandable, of course, in light of internal politics in Egypt, where the emergency law prohibits gatherings and demonstrations. In fact the nature of party system in Egypt has a great impact on the action of the Green Party. Although Egypt is a country that theoretically adopts a multi-party system that includes fourteen parties, in reality the party system is dominated by one party, the National Democratic Party (NDP). The NDP has close relations with some environmental organizations because of overlapping membership, a factor that affected Green Party attempts to coordinate its efforts with NGOs. The political loyalty of NDP members to their party has been an obstacle to attempts by the Greens to rally those organizations to their side.<sup>30</sup>

In fact, studies of other Green parties tend to prove that Green parties "will be more likely to develop, the less the political system is able to integrate environmental demands by other means."<sup>31</sup> In Egypt it seems that the government, because of party politics, is more willing to deal with some NGOs than with the Green Party, a matter which raises questions about the future of the party.

### Environmental NGOs

Although Egypt has a long history with NGOs that dates back to the eighteenth century, it is only recently that Egypt witnessed the emergence of civic groups organized explicitly for environmental conscience. These environmental non-governmental organizations constitute a new force in Egyptian politics that emerged in the 1980s. In this context, environmental NGOs are defined as any of those organizations that are not part of the government, pursue non-profit aims, and are concerned with the protection of the environment. In this regard, environmental NGOs can be research institutes, professional associations, or youth organizations. By early 1990, official estimates had placed the number of environmental NGOs at eighty. However, during the course of this research, only sixty-two were found (appendix 2).<sup>32</sup> About 85 percent of these NGOs are based in Cairo.

The emergence of these environmental NGOs can be attributed to the following factors:

- Environmental concern has risen, at least among certain segments of the Egyptian society, along with the desire to deal with the country's environmental problems.



- The government welcomes the growing numbers of such NGOs because of the government's conviction that environmental problems cannot be solved without citizen participation. According to Mr. Salah Hafez, chairman of the Egyptian Environmental Affairs Agency (EEAA), "We work very hard to nurture and develop them [NGOs], because without them, the environmental movement could not progress. . . . We consider them important partners in our campaign to protect the environment."<sup>33</sup> The government also needs to coordinate with those NGOs, especially after what has been said about the intentions of foreign donors to give their financial assistance to NGOs directly.
- Most foreign donors prefer to cooperate directly with NGOs to escape government bureaucracy and red tape. In fact the Canadian International Agency for Development (CIDA) encourages partnership between Canadian and Egyptian NGOs. The World Bank, also, has increasingly recognized the key role played by NGOs. In a recent World Bank report it was indicated that "the involvement of NGOs has become an important feature of Bank-financed projects. Seventy-three (30 percent) of 245 projects approved in FY93 include some form of collaboration with NGOs."<sup>34</sup>

Glenn Prickett, chief environmental advisor in USAID's bureau for policy and program coordination, also stresses NGO involvement in USAID work: "We want to strongly emphasize involvement of NGOs in all of our work: projects, policy, and research. In projects and programs, our goal is to include NGOs at every stage from inception through evaluation."<sup>35</sup>

Environmental NGOs differ according to their interest or orientation (i.e., single issue vs. multiple issue), size (large or small membership), and open or closed organizations (in terms of membership). Currently, three types of NGOs are active in the country's environmental politics.

### *Types of NGOs*

The first type of environmental NGOs includes organizations with a broad interest in the environment as a whole (multiple issue groups) that are open for everyone who wants to join and that usually have fairly large numbers of members. These organizations are usually part of a larger international network of affiliated organizations and are connected with international organizations that deal with the environment. Examples of this category are the Arab Office for Youth and Environment (AOYE), the National Association for the Protection of the Environment (NAPOE), Friends of the Environment Association in Alexandria (FEA), and Friends of the Environment and Development Association (FEDA).

The Arab Office for Youth and Environment (AOYE) was first established as part of *Al-Ahram* newspaper's science clubs in December 1978 and continued to work within *Al-Ahram* until 1990, when it was registered as a non-governmental organization. The National Association for the Protection of the Environment (NAPOE) was established in 1989. FEA and FEDA are more recent organizations that were established in 1990 in Alexandria, and in 1992 in Cairo, respectively.

The four organizations share a common interest in environmental problems collectively. Their main objective is to protect the environment and promote environmental awareness. AOYE emphasizes that its activities are based on "the fact that awareness is the key to environmental problems, noting that man is the problem and solution for the environment."<sup>36</sup> AOYE has organized several environmental education programs in high schools and offered training courses in four different governorates (Cairo, El Menia, El Mansoura, and Assiut) to train university students on attacking environmental problems in their communities.

FEDA's activities are directed toward achieving sustainable development in general, and sustainable desert development specifically. The association also encourages debt-nature swap agreements in order to assist in decreasing Egypt's foreign debts through implementation of environmental projects in cooperation with other appropriate institutions. Moreover, communications, information, and public awareness are an essential part of FEDA's activities. Therefore, the association participated in the celebration of Earth Day for four consecutive years.

Among the objectives of Friends of the Environment Association in Alexandria (FEA) that differentiate it from the other organizations is its emphasis on protecting the buildings as well as the biophysical environment in Alexandria.

While NAPOE is similar to AOYE, FEA, and FEDA, in being a multiple issue organization, its added interest in the preservation of national heritage gives the organization a distinctive character. The four organizations are concerned with following up the enforcement of legislation and recommending new regulations. This was clear in their active participation and support for the Environmental Protection Law during its discussion in the parliament.

Regarding networking with other international NGOs, the four organizations all have connections, but AOYE and NAPOE are the best known internationally. AOYE joined the International Youth Federation for Environmental Studies and Conservation (IYF) in Denmark in 1980, and has since played a very active role in that context. Consequently, one of its members has been chosen to join the IYF's board of directors. In 1981, AOYE

also joined the Environmental Liaison Center (ELC), affiliated with United Nations Environmental Program (UNEP) in Nairobi. This facilitated more networking with some 800 non-governmental organizations all over the world. The AOYE also was one of the founders of the Third World Association for Renewable Sources of Energy and Environment Conservation (RECA).<sup>37</sup>

On the regional level, AOYE hosted the African Youth Seminar on the Environment in June 1981. This led to the establishment of African Youth for the Environment (AYE), a non-governmental organization for national youth environmental organizations in Africa. Moreover, the AOYE took the initiative in establishing the Arab Union for Youth and Environment in 1983. This strong networking and coordination with international and regional NGOs led Dr. Emad Adly, the secretary general of AOYE, to declare that the office is "probably better known outside than inside Egypt."<sup>38</sup> Dr. Adly now chairs the Global Environmental Facility's office in Egypt. GEF is a three-year pilot program to provide grants for investment projects and technical assistance. GEF resources are to be used for exploring methods of assisting developing countries in protecting the environment. GEF is a UNDP, UNEP, and World Bank creation.

The National Association for Protection of the Environment (NAPOE) has also developed strong connections with other international NGOs and with UNEP. One of the main reasons behind this connection is the fact that some of its members are internationally well known. Among them are Dr. El Kassas, a leading botanist and the father of environmentalism in Egypt; Dr. Mostafa Tolba, the former executive director of UNEP; and Dr. Mounir Neamatalla, the head of an environmental consulting firm. In addition to these persons is Dr. Laila Takla, the leading figure in the Central Association for Protection of the Environment (CAPE). She was several times a member in the People's Assembly and Shura Council and a very active participant in various international conferences, in which she represented Egypt and established a good contact with INGOs. This proved to be very useful when she decided to found NAPOE.

Regarding membership in NAPOE, there are approximately 400 members who are representatives of all sectors of the society. Female membership is 50 percent of NAPOE's total membership. AOYE counts approximately 300 members, the bulk of whom are drawn from universities, and about one-third of the membership is female.

Both FEA and FEDA are smaller in terms of membership. FEA has 165 members, 40 percent of whom are female, and 10 percent of all members are under the age of thirty.<sup>39</sup> FEDA has approximately 130 members, 12 percent of whom are female. While the size of membership in these organi-

zations might appear small in comparison to other international NGOs, in the Egyptian context this is a reasonable size, taking in consideration the fact that NGOs are still a recent phenomenon. The four organizations are each headed by a board of directors. The AOYE board of directors consists of nine members, including two women. Among the members of the board there are four physicians, two engineers, and one journalist. One may trace the high representation of physicians in the board to the fact that the core group who first thought of establishing the AOYE was from the medical faculty. Although all the members of the board are university graduates, there are some members who are still university students. According to Dr. Adly all the members are in the age category of eighteen to forty years, while the active members' ages are between twenty and thirty years old. Dr. Adly also asserted that all the members are from middle-class families and that the AOYE does not include in its memberships any celebrities.<sup>40</sup>

On the other hand, both NAPOE's and FEDA's boards consist of five members; NAPOE has two women on the board while there is no female representation on FEDA's board of directors. FEA has a large board that consists of eight members, three of whom are female. While the membership in AOYE is dominated by youth, NAPOE includes members from different age categories (twenty to sixty), all of whom are at least university graduates. Unlike the AOYE, members of NAPOE are government bureaucrats, governors, ministers, and ex-ministers. It also includes university professors, the head of the information agency, the head of the environmental affairs agency, and some artists. Whereas FEDA's members are drawn mostly from university professors and businessmen who are interested in desert development, FEA's membership represents different segments of the society and includes professors, engineers, doctors, and housewives.

Those four NGOs are very active in networking with other NGOs and with EEAA. They perceive their role to be as agents for the protection of the environment and they are willing to lobby for their cause.

The second type of environmental NGOs includes single issue organizations with open but small memberships. Examples of these are the Association for the Protection of the Environment (APE), the Association for Health and Environmental Development (AHED), and the Association for Development of Services at Zamalek (ADSZ).

While APE and ADSZ are concerned with the problem of solid waste management in Egypt, AHED is concerned more with promoting awareness of the relationship between environmental problems and health care. APE was the brainchild of several individuals working in the field of social development, and helped by such personalities as Sister Emanuelle, who



has spent a lifetime helping the "zaraybeya" or garbage collectors in the Mansheyat Nasser area (Mokattam), Hadayek, and Manial. Initially the main objective of this NGO was to establish a small factory for proper disposal of the garbage.

This factory converts the organic part of the garbage into fertilizer compost, which the association sells to agricultural companies. This procedure thus serves two environmental purposes: it offers a raw material heavily needed for agricultural and desert reclamation projects, and it gets rid of the waste in a much cleaner way than earlier uses. Moreover, this project provides work and extra income for garbage collectors and their families.

APE has recently entered the field of paper recycling. Paper from the garbage and from paper companies is cleaned, treated with chemicals, pressed, and ironed. The result is a type of hard paper more like cardboard, very popular for greeting cards. The association is studying the use of this paper to make shopping bags as an environmentally sound alternative to the plastic bags currently in use.

APE has made deals with certain companies that manufacture ready-made garments. These companies give them their cloth remnants, which they use for making rugs, killims, primitive carpets, mattress covers, and bathroom mats. For this the association has a small factory and has trained 300 girls, all of whom are daughters of garbage collectors. In addition to technical training, they offer these girls small-scale literacy programs.

In a similar effort, the Association for Development of Services in the district of Zamalek has set up a thousand garbage containers throughout the district. It has also hired a cleaning company to conduct garbage collection and cleaning of the streets. Moreover, the association organized a drawing competition among school children in order to raise their environmental awareness.

The total number of members in APE is eighty, 90 percent of whom are female. The BOD is comprised of eleven members, seven of whom are women. The membership of the Association for Development of Services at Zamalek does not exceed fifty; however, forty-seven of its members are women. Its BOD also is dominated by women: all five members are female. Moreover the members in both organizations are highly educated.

As for the Association for Health and Environmental Development, it offers training courses for researchers, workers, and NGOs in the fields of health and the environment. The association also helps the local community in El Manzalah district to deal with pollution in Lake El Manzalah. The association also helped in supporting the residents of El Wayly district in their campaign against lead poisoning that resulted from industrial activi-

ties in the district. It provides the residents with adequate scientific information about the problem and how they can deal with it.

Regarding membership, AHED's total membership is seventy, thirty of whom are women, and the board of directors is equally divided between men and women in the association.

The third type of environmental NGOs is represented mostly by scientific societies and some research institutes that deal with environmental problems in Egypt. Each has a small membership that is limited to scientists, researchers, or members with specific academic degree. Its impact comes as a result of the researchers and the technical expertise of the members. The number of NGOs of this type totals twenty, all operating in Cairo with the exception of three operating in the provinces. Examples of this type are the National Society for Environmental Protection, the Egyptian Society for Marine Sciences and Technology, and the Egyptian Association for Toxic Sciences.

The National Society for Environmental Protection consists of a hundred members; twenty-three are females, two of whom are members of the board. Dr. Ahmed Abdel Wahab Abdel Gawad, secretary general of the organization, emphasizes the scientific nature of the association and that all the members hold Ph.D degrees.<sup>41</sup> The main activities of this NGO center around promoting environmental awareness through research, seminars, conferences, and the publication of a scientific magazine.

The Egyptian Society for Marine Sciences and Technology has seventy members overall, of whom ten are female. The board of directors consists of fifteen members, of whom only one is female. The members are scientists and professors on marine science and technology. They are concerned with the effects of marine technology and equipment-oil and mineral drillers, large fishing boats, and other such heavy equipment on marine life and the safety of sea waters. They are also concerned with the effects of marine pollution resulting from oil spills and waste water dumping, and on marine life in general. Experts within the NGO highlight these negative impacts and provide alternative solutions to minimize problems.<sup>42</sup>

In contrast to the National Society for Environmental Protection and the Egyptian Society for Marine Science and Technology, the Egyptian Association for Toxic Sciences has a large membership (300 members), 30 percent of whom are women. The BOD consists of fifteen members, three of whom are women.<sup>43</sup> Although the NGO's main concern has always been the study of toxic effects of medical drugs on humans and animals, especially since in Egypt many drugs can be bought directly from pharmacies without prescriptions. Lately and with the rise of environmental concern,



the NGO has turned to environment as one of its main areas of concentration. Thus, recent research studies and conferences undertaken by the NGO have focused on such topics as the effect of pesticides on plants and humans and the effect of food coloring and additives on human health.

Indeed, the scientific community played a significant role in activating environmental awareness, not only through their NGOs, but also through governmental scientific institutions. For instance, in 1972, Dr. El Kassas, Dr. Shafica Nasser, and other scientists established the "Environmental Research Council" within the Academy of Scientific Research.<sup>44</sup> In the late 1980s some members of the committee became members in the People's Assembly and Shura Council, within which reports on water and pollution have been discussed.

Regarding networking, one may argue that the level of coordination is higher within the scientific community than among the activists. This, may be due to the fact that those scientists are members in more than one organization and that members of the scientific community meet together in conferences and symposia and share their thoughts on the technical aspects of environmental problems.

#### *Environmental NGOs: Where Are We Now?*

In attempting to evaluate the current status of environmental NGOs in Egypt, one may argue that:

1. Regarding relations with EEAA, some NGOs mentioned that they have very little contact with the EEAA. They argue that the Environmental Agency only deals with very few NGOs while the rest are marginalized. However, it is interesting to note that many NGOs maintain personal contacts with individuals at the EEAA, or they have certain members who work as consultants for the Environmental Agency and act as channels of communication between their NGOs and the EEAA. This reflects the fact that most NGO activities are based on individual rather than group efforts. It also accentuates the Egyptian belief that personal or informal channels of communication are usually more effective than organizational or formal ways in achieving one's objectives.

On the other hand, some NGOs stated that they had successful cooperation with the Environmental Agency. For instance, the Egyptian Association for Protection of National Resources has fruitful cooperation with the Department of Natural Protectorates; they exchange information and technical and scientific expertise on issues related to wildlife and the preservation of natural resources.<sup>45</sup> Friends of the Environment and Development Association is also satisfied with the level of its cooperation with EEAA.

They appreciate the support given to NGOs by the chairman of the Environmental Agency, to the extent that one of the members said: "Salah Hafez knows what he is doing, but if he does not succeed he can come tomorrow and join us."<sup>46</sup>

As a reaction to NGOs' opinion, Mr. Hafez stated: "Of course we are more vulnerable to criticism when we expose ourselves to NGOs, because while they are always enthusiastic about issues, they like to criticize and they like to shout. It's difficult to control NGO meetings. That's the bad news. The good news, of course, is that they are becoming more and more visible and appreciated."<sup>47</sup>

2. In order to address the lack of cooperation among NGOs and their scarce contact with the EEAA, a conference, held in May 1992, was organized by the Environmental Agency with the help of Friedrich Ebert Stiftung, a German organization, to discuss the role of NGOs in the field of the environment and methods for networking and cooperation. As a result, a directory of environmental NGOs has been created by EEAA. After the UN Conference on Environment in Rio 1990, EEAA selected a committee of NGOs to prepare for a general meeting of environmental NGOs. This committee included NGOs like the Society for Urban Development in Islamic Cairo, the Arab Office of Youth and Environment (AOYE), the Association for the Protection of Natural Beauty, the National Association for Protection of Environment (NAPOE), and the Friends of the Environment Association (FEA) in Alexandria.

In addition to networking, NGO meetings discussed their legal status, their role in environmental policy, and problems that confront environmental NGOs. As a result of these meetings and with the encouragement of EEAA, a new committee, the Egyptian Environmental NGOs Steering Committee, has been established. Unlike the previous committee, the new one is an elected committee that comprises fifteen elected representatives of ENGOS.<sup>48</sup> Lately, the number of committee members increased to nineteen with the addition of an EEAA representative and three new members of NGOs who are, at the same time, well connected to foreign funding agencies such as the Global Environmental Facility, Friedrich Ebert Stiftung, and the Canadian International Development Agency (CIDA). This committee will act as an advisory committee for the EEAA on voluntary activities in the field of environment. It will also serve as a channel of communication between donors, NGOs, and the EEAA. Moreover, the committee will help in empowering environmental NGOs and building their capacity. The EEAA welcomed the cooperation with the ENGOS, since this would enable it to

influence and direct the flow of foreign funds allocated to them by making this steering committee the coordinator/mediator between foreign donors and ENGOs.

3. Most NGOs listed in the EEAA directory are not directly involved in environmental activities. Environmental issues emerge as a by-product of the topics addressed in their research studies and conferences. In fact, Dr. Gamal Khairy, assistant secretary general and BOD member of the National Society for Technological and Economic Development, stated: "Although as an NGO we are not specifically concerned with environment as a field, some of the issues we address in these conferences relate to the use of clean technology."<sup>49</sup> Some other NGOs, such as the Egyptian Society for Tropical Diseases and the Egyptian Association for Medical Sciences, mentioned that they have no activities in the field of the environment and were surprised to discover that they were in the EEAA directory. Practically speaking therefore, the number of environmental NGOs per se in Egypt remains small.

4. There is very little horizontal cooperation between environmental NGOs in Egypt. Except for occasional attendance of conferences, most NGOs work independently, even those whose objectives and activities are similar. So little information is available on NGO activities that many of those interviewed had no idea of the mere existence of other associations working in the same field.

5. Except for a few NGOs, like APE, The Basaisa (CCD), the Society for Development of Services in Zamalek, AOYE, and FEDA, who are directly involved in environmental projects, much of the NGO efforts are confined to research studies and conferences that are usually held in expensive five-star hotels, with very little fieldwork. This is due not only to a lack of sufficient funding but, especially for professional NGOs, to a general reluctance on the part of the members to allocate some time from their busy schedules to fieldwork.

6. Members are usually drawn from professional and academic backgrounds with little grassroots participation. This accentuates the argument stated at the beginning of the study that in Egypt those who are the most responsible for environmental pollution and the most affected by it are those who are least aware of it. This problem was well stated by a member of an NGO who said, "The majority of NGO members don't integrate themselves into the problems of the community. In other words we hold our meetings in fancy hotels and talk about problems of the workers at the cement factory in Helwan when none of us have really felt it. . . . We have to live the problems to be able to talk about them and to work towards solving them

... or we should consider including in our membership people who suffer somehow from the problems."<sup>50</sup>

7. From the social composition of environmental NGOs it is clear that there is a positive relation between the level of education and participation in voluntary work. Ninety-five percent of environmental NGOs mentioned that their members are university graduates. If we take into consideration the low voting turnout by educated people in Egypt in national elections and their lack of enthusiasm in joining political parties, one may argue that environmental NGOs provide an alternative platform for participation.

8. Women are very active participants in environmental NGOs. Sixty-eight percent of the NGOs studied have women on the boards of directors, and 7 percent have all-female boards. This reflects the importance of the issue to Egyptian women. The high level of women's participation in this area in particular can be largely attributable to the fact that women in Egypt—as a consequence of a sociocultural division of labor that cuts across classes—carry household responsibilities that bring them into intimate contact with natural resources.<sup>51</sup> This has naturally tended to sharpen the awareness of educated women of the impact of environmental hazards on members of their families, particularly children.

9. Young people do not play a significant role in the activities of most NGOs. This may prove to be a drawback for those NGOs that are involved in fieldwork in which youth can make energetic contributions.

## PROBLEMS AND OBSTACLES OF ENVIRONMENTAL NGOS IN EGYPT

Problems that face NGOs in Egypt can be grouped into two categories: internal problems related to each organization, and external problems related to the structure of the political and legal system in Egypt.

### Internal Problems

*Lack of managerial skills.* Organizations are understaffed and depend on volunteers who lack the time to devote to managerial and administrative tasks. Therefore, there is a need for staff training to allow them to carry out basic work efficiently.

*Funding.* The majority of NGOs in Egypt lack a stable financial source. Small membership size and minimal fees create great problems for NGOs trying to fulfill their budget needs. Even when they seek the support of foreign donors, this in many cases shapes and constrains their activities and creates a sense of dependency.

*Leadership.* Many of these organizations are centered around individual



leaders. The existence and life of these organizations depend entirely on these leaders. This in reality is typical of the Egyptian political system as a whole, where leadership figures command the upper hand in decision making. Nevertheless, there is a need for a more democratic internal structure for NGOs.

*Lack of special skills.* Most NGO members in general lack the skills to write proposals, formulate projects, raise funds, and manage group work. Therefore, a serious program for capacity building and empowerment needs to be developed.

### External Problems

According to Law No. 32 of 1964, all organizations have to register with the Ministry of Social Affairs. The ministry reserves the right to supervise the financial and social activities of registered organizations. In addition, it may reject any proposal for outside financial support. In case of acceptance, it preserves the right to audit and check on all expenses and budget items. Environmental NGOs have fought strongly to ease these restrictions imposed on them by the Ministry of Social Affairs. They have succeeded in convincing MOSA to create a separate division for environmental NGOs as distinct from other NGOs.

The Ministry of Social Affairs provides very weak financial support to NGOs (200 Egyptian pounds annually). Still, the ministry restricts any fund-raising campaigns organized by the NGOs.

### FOREIGN DONORS

In addition to the state, the Green Party, and ENGOs, foreign donors are very active in Egypt's environmental policy. In fact, major strategic work on the environment in Egypt has been the product of a cooperative process linking the Government of Egypt (GOE) with intergovernmental agencies like the World Bank and bilateral development agencies such as CIDA, DANIDA, USAID, EEC, and JICA.

Realizing the nature of environmental problems and that no one country's environmental policy can deal with the magnitude and scope of worldwide environmental problems, development agencies emphasize the need to integrate environmental considerations into development policy making. Moreover, they allocate part of their financial assistance to be used to combat environmental degradation in the Third World.

Donor strategies differ from one agency to another. The Canada International Development Agency (CIDA) prefers to work with NGOs in most

of its projects and applies the principle of partnership, where Canadian NGOs work with Egyptian NGOs in common projects. CIDA is also interested in and is currently working on projects related to water resources management, land resources management, public awareness, and biotechnology. CIDA has also allocated US\$60 million for its initiative to support NGOs' capacity building.

For its part, the Danish International Development Agency (DANIDA) works through an integrated framework of analysis and cooperates with various types of institutions. For example, DANIDA played an important role in helping the EEAA prepare new regulations and reform its organizational structures in anticipation of its new roles under the Environmental Protection Law.

This is in clear contrast to the position of USAID, which has only recently developed a position on Egypt's environmental problems. USAID made the creation of a "strong central environmental protection program"<sup>52</sup> a precondition for focused aid. Instead of directly promoting such a development or working with the EEAA, as DANIDA did, it directed aid to line ministries in projects relating to the environment, such as water pollution control and irrigation. USAID also prefers to work through American firms and the majority of its projects are with the government, not NGOs.

One could look at the development assistance programs offered by any of the other major donors, including Great Britain, Sweden, Japan, and Italy, and find similar differences. Each makes different choices regarding the substantive areas (i.e., air pollution, soil conservation, etc.), the preferred partners, the working relationships, and even the geographic area(s) they emphasize in their projects.

In addition to the above-mentioned donor agencies, the World Bank stands as one of the most influential financial institutions and its impact on Egypt's environmental policy cannot be ignored. The bank assisted Egypt in formulating its National Environmental Action Plan, financing numerous environmental projects, and creating the International Cooperation Unit to promote cooperation between GOE and international donors and to coordinate the development of Egypt's Environmental Action Plan. A quick look at the Bank's environmental policy will help assess the impact of these efforts.

Having been criticized in the 1960s by environmental groups for not being sensitive to environmental protection issues, the bank initially reacted by recruiting its first environmental advisor and establishing the Office of Environmental Affairs in the early 1970s. By 1987, the bank was strongly pushing environmental management as an essential aspect of de-



velopment. In the 1990s, the bank advocates the integration of environmental management into economic policy making at all levels of government.<sup>53</sup>

The Bank lists its policy objectives as the following:

- Assisting member countries in setting priorities, building institutions, and implementing programs;
- Ensuring that potential adverse environmental impacts from bank-financed projects are addressed;
- Assisting member countries in building on synergies among poverty reduction, economic efficiency and environmental protection;
- Addressing global environmental challenges through participation in the Global Environmental Facility (GEF).<sup>54</sup>

To achieve these objectives, the bank helps developing countries in the following ways:

- Creating environmental profiles to identify major environmental problems;
- Preparing national environmental action plans and regional strategy documents that will be used as guidelines to help donors and countries set priorities and to help strengthen policy formulation in major borrowing countries;
- Supporting environmental programs through lending, technical assistance, and aid coordination. As a further spur to sustainable development, since 1989 the bank has dictated that all its financial projects include environmental impact assessment.

In fiscal year 1993, the bank reported committing a record US\$2 billion to "assist developing countries in environmental protection and improvement."<sup>55</sup> This is in addition to funds for complementary activities such as population control and education.

## SUMMARY

In Egypt, environmental policy was initiated by the government in response to donors' encouragement or pressure. There was some input from the society or at least from a few individuals who, because of their professional interests, tried to put the environment on the government's agenda, but the availability of international financial assistance was perceived as a unique

opportunity by the government and was a crucial factor in pushing the government toward significant action.

Clearly, Egypt's environmental problems were perceived by prominent Egyptian scientists who succeeded in convincing a key decision maker, Prime Minister Fouad Mohi Eldin at the time, to look at these problems. Nevertheless, at that time the problem did not reach the agenda of the government and was discussed on a very small scale. But when the donor agencies showed interest in committing funds for the environment, the issue reached the top of the government's agenda. Contrary to the prevailing thought in the agenda-setting literature, the existence of a problem that attracted the attention of the decision maker was not enough to secure its position on the agenda without the availability of financial resources.

## Chapter 2

### Policy Formulation

The process of policy formulation reflects a government's perception of a problem, its plans to combat the problem, and the means or instruments by which the plans are implemented.

This process reflects the thrust of a government's position on the issue of environmental protection. Questions are, What Egypt would like to protect? How will it go about protecting it? At what cost and at whose expense?

The literature on environmental protection identifies three paradigms of environmental protection. The first advocates the protection of nature from people. In this viewpoint people are perceived as the only source of environmental destruction and environmental degradation. People are evil, irrational, and destructive, therefore the only solution for our planet is more protection of nature, especially endangered species of animals and plants.

The second paradigm is the protection of man from nature. In this paradigm nature becomes a source of pollution and a threat to human health and well-being. Consequently, there is a need to protect people from nature or the surrounding environment.

The third paradigm concerns the need to protect both people and nature. There is a need to ration the use of natural resources, to protect and upgrade them. This process is part and parcel of protecting man and improving his natural surroundings.

The Egyptian government's environmental objectives reflect a view closest to the third paradigm. According to the GOE, "Egypt adopts an environmental policy that supports sustainable development programs taking environmental considerations in perspective and provides a life fit for its citizens."<sup>1</sup> In order to achieve the desired goal, the GOE embarked on the preparation of its environmental action plan and the drafting of the law of environmental protection.

## THE NATIONAL ENVIRONMENTAL ACTION PLAN

The National Environmental Action Plan (NEAP) was created in 1992 with assistance from the World Bank. It is a comprehensive document that reflects the government's perception and position concerning environmental protection in Egypt. The purposes of the plan were first to have a complete evaluation of problems using all the available data and information and, second, to identify projects and programs and set priorities to deal with these problems.<sup>2</sup>

### Initiation of NEAP

NEAP was initiated as a result of the following factors:

1. The GOE realized that the country's environmental problems were dominated by the absolute need to better develop and manage very limited natural resources, in order to meet the needs of a population growing at the rate of 2.5 percent per year.<sup>3</sup> This required an environmental action plan that would define the situation, analyze the problems, set goals, and identify means to achieve those goals.

2. The GOE's perception that the magnitude and urgency of Egypt's environmental problems and their cost implications called for a more global approach to seeking assistance and a coherent strategy.

3. The GOE wanted to take advantage of the World Bank's environmental policy. The World Bank initiated a debt-for-nature swap policy, to transform the commercial debt of developing countries into finances for the environment. This policy was perceived by GOE as an opportunity to obtain debt relief.<sup>4</sup> During the same period, the GOE was scheduled to meet with the Paris Club to review the situation of Egypt's debts. According to Dr. Atef Ebeid, minister of state for administrative development and environment, there was a tacit agreement between the GOE and the creditor countries of the club that Egypt could receive a 12 percent reduction on the size of its debt, to be reallocated to environmental projects.

4. The World Bank encouraged developing countries to undertake comprehensive national environmental action plans. These plans provide a basis for bank dialogue with governments and facilitate donor coordination by serving as a framework for aid coordination.<sup>5</sup>

### Formulation Process of Egypt's NEAP

According to the World Bank the process of formulating the plan is as important as its outcome.<sup>6</sup> Therefore, the bank emphasizes the need to include representatives from several interests, such as national governments, local administrators, research and academic institutions, NGOs, and the private sector.<sup>7</sup> Consistent with the bank's policy, the GOE wanted the plan to be a

Table 2.1. National groups participating in the drafting of the National Environmental Action Plan

Group	No. of participants
International Cooperation Unit	10
Egyptian Environmental Affairs Agency	9
Research centers	44
Media	17
Government officials	22
Non-governmental organizations and syndicates	5
Green Party	2
Universities	38
Health sector	7
Interior affairs sector	5
Friedrich Ebert Organization	3
Oil sector	2

result of a truly national effort.<sup>8</sup> It therefore included about 200 experts from different ministries, including Industry, Agriculture, Irrigation, Petroleum and Tourism, and others from research institutions such as the National Research Center, the Remote Sensing Center, and the National Institute for Oceanography and Fisheries. To complement the national effort, experts from non-governmental organizations such as the AOYE and NAPOE, in addition to the Green Party, were also included. These experts were divided into ten groups to review Egypt's environmental problems (see table 2.1). The main features of the plan were sketched by Dr. Atef Ebeid.<sup>9</sup>

Moreover, the GOE requested that the World Bank lead a team of experts provided by several donors to support the preparation of NEAP. These donors included Denmark, the EEC, Italy, and the UK. The team of Egyptian experts worked hand in hand with the bank team to identify environmental problems. These problems were then dealt with through policy actions and investment proposals (see table 2.2).

According to Khaled Fahmy, an environmental specialist and one of the participants in the working groups that created NEAP, the preparation for the plan passed through three stages.<sup>10</sup> The first stage started in July 1991 and continued through September of the same year. During this stage, ten working groups of national experts were trying to identify Egypt's problems relating to land degradation and desertification, greening, water resources, air pollution, solid waste management, and topics including na-



Table 2.2. Priority listing of environmental issues in Egypt

## Rio Report/Five-Year Plan

- 
1. Increasing green space
  2. Freshwater management
  3. Protecting soils against environmental degradation
  4. Marine resources management
  5. Environmental map of Egypt's natural resources
  6. Air protection in Egyptian cities
  7. Management and handling of solid and hazardous residues
  8. Improving vocational environment
  9. Food quality improvement
  10. Population and urban and rural development
  11. Natural and cultural heritage
  12. Mitigating environmental impacts of natural disasters
  13. Developing environmental management instruments in Egypt
  14. Supporting environmental awareness and people's participation

## NEAP table of contents

- 
1. Pollution and degradation of natural resources
  2. Air pollution
  3. Solid waste management
  4. Protecting Egypt's heritage
  5. Strengthening environmental institutions
- 

tional heritage and conservation parks or protectorates, environmental education and communication, the role of NGOs, environmental institutions, the legal framework, environmental information, and population and environment.

At the end of their study, the national experts met with the World Bank experts team to discuss primary reports on the above-mentioned issues. This meeting was followed by another meeting with bilateral and multilateral donors to present this stage of the plan and describe what the government planned to do in the following stages. As a result of this meeting, UNDP offered the EEAA financial assistance to be used in the preparation of NEAP. Japan, the EEC, and Denmark contributed by sponsoring international experts to assist the GOE. By October 1991 the International Cooperation Unit (ICU) had been created to assist EEAA in the coordination between the Environmental Agency and the donor countries in relation to the preparation of NEAP.

In the second stage both national and international teams prepared, revised, and discussed their reports. While the national teams discussed their reports in a conference that was held in Cairo in December 1991, the international team discussed its report in the bank headquarters in Washington, D.C., in January 1992. This meeting was also attended by Dr. Tarek Geneina, chair of ICU, Engineer Walid Gamal El Din of ICU, and Dr. Khaled Fahmy of the Friedrich Ebert Stiftung Foundation.<sup>11</sup> The end result of this stage was ten national reports and ten other reports by international experts that analyzed Egypt's environmental problems.

The third stage included the integration of reports, and the final document of Egypt's EAP was finalized in Spring 1992. The NEAP was presented by the EEAA to international donors at a conference held in Cairo on May 24, 1992, in which these agencies were requested to provide funds for the plan. Though NEAP has not yet reached the implementation stage, it serves a useful purpose by providing a broader framework for environmental action.

In the preparation of Egypt's EAP, the government followed the World Bank guidelines both in style and content. In terms of style, the process of NEAP formulation induced a broad range of popular participation in the planning and formulation of environmental policies, a matter that, though new in public policy making in Egypt, also reflects the nature of environmental issues and the government's perception that environmental problems cannot be combated without popular participation.

The content of Egypt's Environmental Action Plan addressed both the common goals advocated by the World Bank and the specificity of Egypt's environmental problems. The bank's goals include furthering environmental policy and legislation, strengthening the institutional framework for dealing with environmental issues, building national capacity for environmental management, developing human resources, and addressing key natural resource management issues.<sup>12</sup> Specific environmental problems most worthy of attention in Egypt include land degradation, water pollution, air pollution, solid waste management, and the protection of natural heritage.

From examining the NEAP one may see the following:

1. No attempt was made to prioritize Egypt's environmental problems. Several explanations have been given for that. According to Salah Hafez, chair of the EEAA, the focus on only one problem might be very detrimental. Walid Gamaleldin also explained that while drafting the NEAP, the team was aware of the lack of prioritization of the issues, and it was assumed that it was a political decision, left for politicians to make.<sup>13</sup>

It is very difficult to prioritize because of the nature of environmental problems. Environmental problems are closely integrated to the extent that

identification of the causal factors is a difficult task. For instance, according to a UN study on effective environmental policy, "it frequently proves to be the case that in order to resolve one environmental problem, another problem, which is the cause of the former, must be dealt with first."<sup>14</sup> Also, a solution to a problem may have undesirable side effects. It often happens that if, for example, steps are taken to protect cities and villages from floods by the construction of a dam, this in itself, as well as retaining a large amount of water, also holds back an amount of clay which, in turn, causes less fertility of agricultural land.

Other factors causing the lack of prioritization of environmental problems included the unavailability of objective criteria on which ranking could be based. This does not mean, however, that ranking environmental problems is an impossible task. An indicator of such criteria could be the size of the population affected by the problem and the threat to both human health conditions and the economic production of the country.

2. While NEAP lacked prioritization of issues, both the GOE Report for the Rio Conference and the country's Five-Year National Plan (92/93-96/97) identified a list of priorities for environmental programs. In fact, the Five-Year National Plan and the National Report for the Rio Conference identify "Increasing Green Spaces" as their top issue on their ranked agendas, owing to the importance of this issue with regard to air and land quality.

3. The NEAP in a country like Egypt, known for overpopulation, should have taken into account the impact of the population problem on environmental degradation. As a matter of fact the relation between population and environmental degradation is a controversial issue. Anthony Fisher argues that the deteriorating environmental quality is not primarily caused by the increase in population but is rather the result of a pervasive price distortion, i.e., the charges of pollution are paid for by the entire society and not just the polluter.<sup>15</sup>

Fisher, who was studying developed countries, went on to propose that there is no relationship between population size and environmental quality. In some areas in the United States population rises more rapidly than environmental degradation, in others, population may rise while the level of environmental degradation may be stable. In his view, both population and economic activity had increased over the last several years in Los Angeles without further deterioration in air quality. This was due to the government's ability to impose emissions control. Fisher concluded by asserting that "it is misleading to assert that population control can, in itself, be expected to do much for environmental quality."<sup>16</sup>

On the other hand, the World Bank and prominent environmentalists<sup>17</sup>

argue that population growth increases the demand for goods and services and implies increased environmental damage. Population growth also increases the need for employment, which exerts additional pressure on natural resources. More people also produce more waste and threaten health conditions.<sup>18</sup> In other words, not only the size or distribution of population exerts pressure on the environment, but also the level of consumption of the population.

In Egypt, although the rate of population growth is declining, the rapid growth in human numbers, plus their distribution patterns and urbanization trends, induce a huge burden on the limited environmental resource base (see appendix 3).

4. It was also strange that the NEAP did not pay any attention to the relation between poverty and the environment, in a country where almost one-third of the population lives below the poverty line.

Consequently the NEAP became more like a shopping list of projects to be presented to donor countries than a National Environmental Plan to solve the country's basic problems.

#### THE ENVIRONMENTAL PROTECTION LAW AS A POLICY INSTRUMENT

Policy instruments are tools that governments use to implement their policies. Such instruments or tools include economic tools (taxes and incentives), legal tools (laws and regulations), and educational tools (environmental education and environmental awareness). The government choice of certain policy instruments answers a philosophical question. Namely, to what extent is the government leaning toward confrontation or collaboration as a way to approach polluters?

The choice of collaboration was quite apparent when the government of Egypt elected to sponsor the Environmental Protection Law No. 4 of 1994. The law motivates polluters to follow a more sound environmental behavior by setting standards, requiring environmental impact assessments, allowing for an adjustment period for industrial establishments, forcing them to comply with regulations, and offering economic incentives for the first time in Egyptian Law. Penalties are called for in the law as a last resort against those polluters who are violating the rules. The law also stipulates the responsibilities of the Environmental Affairs Agency in environmental management and creates a special fund to support environmental activities.

#### Initiation of the Law

The initiation of the law was the result of the interplay of several factors:

- The Egyptian government felt that effective environmental policy cannot be achieved without the existence of a legal framework, one that



regulates the natural environment, influences the way people behave, and provides regulations by which certain activities are carried out or forbidden. Consequently, it realized the necessity of proper legislation to buttress its environmental policies and to complement the existence of the EEAA and the National Action Plan.<sup>19</sup> Furthermore, the law also helped the authorities to gain credibility in the eyes of foreign donors.

- The government of Egypt also admitted that although the country had environmental regulations dating back to 1940, these were not comprehensive enough to cover all environmental aspects. There was therefore a need to fill that gap.
- More significantly, there was need to strengthen the power of the EEAA and to demarcate the lines of its authority vis-à-vis other ministries and institutions so as to allow it to fulfill its responsibility in terms of environmental protection.
- Also relevant to the initiation of the law was the pressure from donor countries, which were pushing for a greater consideration of environmental issues and for a formal commitment by the Egyptian government in this respect. For instance, the Egyptian press stated that donor countries and organizations (Canada, Denmark, the UK, the EEC, and the World Bank) made it clear to both the EEAA and the Ministry of International Cooperation that an environmental law would show the government's commitment and give credibility to its environmental policies.<sup>20</sup> The Ministry of International Cooperation assured that donor countries greatly necessitate the issuing of a law for the protection of the environment to act as a legal framework by which needed funding for environmental projects would be supplied.<sup>21</sup>

### Formulation of the Law

The law has been formulated by a group of Egyptian experts who represented both governmental and non-governmental institutions. On the governmental side, there were representatives from the EEAA and the ministries of Health, Industry, Petroleum, Agriculture, Tourism, and Interior Affairs. On the non-governmental side some environmental NGOs were consulted, including the Association for Environmental Legislation, the National Association for the Protection of the Environment (NAPOE), and the Arab Office for Youth and Environment (AOYE). In addition to those NGOs, a private legal consulting firm and some research institutions were also consulted.<sup>22</sup>

The law consists of five parts, including 104 articles. The first part deals with environmental management (articles 1–18) and covers the creation of the Environmental Affairs Agency (EEAA) and the Environmental Protec-



tion and Development Fund, as well as stating economic incentives for the protection of the environment. The second part (articles 19–33) covers land pollution, development, and the environment. The third part deals with clean air and is titled “Protecting the Air Environment from Pollution” (articles 34–47). The fourth part deals with water pollution resulting from oil spills, harmful materials, waste water and solid wastes, and pollution from land-based sources. This part also includes articles on administrative and legal procedures (articles 48–83). The last part covers penalties and final rules (84–104).

The law was under review in the People’s Assembly for more than four years. The first draft was submitted by the government to the assembly on October 15, 1989, and the law was finally approved on January 1994. In almost unprecedented delay by the assembly during those years the law has been discussed by more than sixty-one members of the parliament, fifty-two members from the ruling party (the National Democratic Party), eight independent members, and only one from the opposition. The law has also been redrafted seventeen times, in both the parliamentary debates and the discussion within the specialized committees. Moreover, there were public hearing sessions where members of NGOs concerned with the environment were invited to attend and to take part in the discussion. Such members were from Friends of Environment and Development (FEDA), Friends of the Environment in Alexandria,<sup>23</sup> the Society for Development of Services, the Society for Art and Islamic Antiquities, and the Tree Lovers Association, in addition to leading environmental figures such as Dr. Mostafa Tolba.

The draft law has passed through several stages to finalization. It was discussed within the Health and Environment Committee and then in a joint committee that included members from such related committees in the Assembly as Industry and Energy, Agriculture, Petroleum, and Tourism. The deliberation within this committee continued for two sessions and finally the assembly approved the bill in principle on May 10, 1993. In the final stage, the assembly at large reviewed the final draft and approved thirty-five articles out of 104, but the discussion was discontinued as a result of the legislative summer break in July 1993. The assembly went back to examine the remaining articles and the law was finally approved in January 1994 and promulgated by the President of the Republic.

From looking into the law, one can identify the following major elements:

- The rising status of NGOs. According to article 6 of the law, the board of the EEAA will include among its members three representatives of ENGOs. These ENGOs will be chosen in agreement with the minister in charge of environmental affairs. The February 1993 draft only pro-

vided for ENGO representative on the board, while the final law increased them to three. The ratio between ENGOs and public sector business on the board also changed from 1:3 to 3:3. The new law, therefore, not only enhances the presence of NGOs, but also puts it on an equal footing with the business sector. Moreover, article 103 of the law, entitles NGOs "to report any violation of the provisions of the law."

- The creation of a special fund for the protection and development of the environment. According to article 14, the law has created a fund from foreign aid penalties, and from funds allocated from the state budget to be used for the general purpose of the protection of the environment. The creation of this fund will enhance the capacity of EEAA to achieve its designated tasks.
- Environmental impact assessment. Consistent with the World Bank environmental strategy, Egyptian environmental law necessitated the issuance of environmental impact assessments. This emphasis came as a victory for the viewpoint that environmental protection is an integral part of the development process. This issue was a source of a heated debate by the industrialists in the parliament. However, EIA statements when applied in the industrialized states were supported by the existence of the Freedom of Information Act. This act allows residents of any district access of enough information on any project that will be implemented in their district, allowing them to be aware of its impact on their environment. However, in Egypt, access of information is problematic and sometimes impossible, denying citizens the right to be aware of the impact of environmental projects on their environment.

## SUMMARY AND CONCLUSION

From the proceeding analysis, it is clear that the formulation process of both documents was a democratic process. It included experts activists and politicians. This is in itself a new development in Egyptian public policy making. The role of the World Bank was also clear in the formulation of the National Environmental Action Plan. Also foreign donors helped in the passing of the law.

As for the substance, both documents suffer from severe problems, and it remains to be seen if the new trends in policy formulation will be applied to the implementation and enforcement of the documents, the matter which may help solving some of the problems in the documents.

## Chapter 3

### Decision Making Process

Decision making lies at the core of the policy making process. Once an issue area has reached the government agenda, it is usually analyzed and debated until a policy output emerges in the form of a law, administrative change, or in some cases a decision not to act. What goes on between the arrival on the agenda and the policy output is the subject of decision making analysis.

Decision making in the area of environment is a very complex process. It reflects the complexity inherent in the nature of environmental problems, where scientific knowledge is incomplete. The issues are interrelated to the extent that one cannot separate causes from effects, and trade-offs are involved.

Describing this process or processes is a very difficult task. Decision making theories provide any analyst with a wealth of approaches. Every approach differs in its unit of analysis (individual, organization, groups of bureaucrats, etc.), assumptions, and understanding of how decisions are made. For instance, three broad approaches dominate this area of analysis. The first, the rational actor model, presents an ideal type of decision making in which the policy decision is based on a thorough study of alternatives, means-ends calculation, and cost-benefit analysis. It assumes the decision maker (be it an individual or a group) has perfect information, clear alternatives, and time to deliberate. Moreover, the decision maker engages in maximizing behavior.<sup>1</sup> Clearly, these conditions are rarely met in practice. Simon, in his work on organizational theory,<sup>2</sup> introduced the second approach, bounded rationality, in which he tried to modify the rationality model by emphasizing how human perceptions and the definition of the situation interface with the decision making process and influence the policy output. According to Simon, "most human decision-making, whether individual or organizational, is concerned with the discovery and selection of satisfactory alternatives; only in exceptional cases is it concerned with the discovery and selection of optimal alternatives."<sup>3</sup>

A third approach does not look so much at the constraints on the individual decision maker but at the organizational and bureaucratic atmosphere. Here some scholars focus on the way large organizations follow "standard patterns of behavior." Allison, for example, argues that decisions are made on the basis of standard operating procedures, and therefore they lead to incremental changes. Other scholars, such as Morton Halperin, Allison, and Axelrod,<sup>4</sup> focus on the conflictual process leading to a decision and see the interactions among various officials and agencies as the critical factor in determining the final policy output. In such analysis, the result can be seen as either victory for one side or a negotiated settlement between different parties. While each actor may be behaving rationally from his, her, or its own perspective, the decision will not be arrived at through a rational process of weighing means to achieve the goals of the state.

While any of these approaches can be applied to any given decision, the nature of the problem and the decision making process will usually make one more fruitful in a specific case. In the study of Egyptian environmental policy, examples suited to each approach can be found. Low-level technical decisions lend themselves to a rational-actor approach; for instance, cost-benefit and environmental-risk analysis and environmental impact assessment are techniques that approach the rational actor model of decision making. At higher levels, decisions such as EEAA strategies or policy direction are usually taken by high ranking individual officials, so these cases can be studied best by applying the second approach. In analyzing decision making processes in Egypt's environmental policy, an attempt will be made to capture the complexity of the process by providing more than one example of decision making and by using more than one approach. In contrast to the story of the blind men and the elephant, where each man captured part of the elephant and assumed that the part was an indication of the whole, these snapshots of decisions together represent the decision making process in the environmental arena.

#### ENVIRONMENTAL POLICY BY "DISJOINTED INCREMENTALISM"

Lindblom and Braybrooke also draw our attention to the discrepancies between the "rational model" and the reality of policy making. Decision making in their view is made through "disjointed incrementalism." According to Lindblom and Braybrooke, it is decision making through small or incremental moves on particular problems rather than through a comprehensive program. The strategy thus sharply reduces the analyst's need for either a wide-ranging body of empirical generalizations or the propositions of a large formal theoretical system. Also, contrary to the "rational model,"



the policy maker is engaged in satisfying rather than maximizing behavior. Moreover, the incremental theorists advocate that "where analysis and policy making are serial, remedial, and fragmented, political process can achieve consideration of a wider variety of values than can possibly be grasped and attended to by any one analyst or policy-maker."<sup>5</sup>

An application of this model can be found in the decision making process within the Technical Cooperation Office for the Environment (TCOE). Being the office responsible for the coordination between the foreign donors and ministries involved in environmental issues, TCOE is responsible for preparing environment-related projects and programs. Until recently, TCOE was reacting to donor-driven projects. Within the framework of these projects, policy makers consider policy modification and policy alternatives. Decisions are made and policies are formulated to meet certain problems (e.g., air pollution in the Helwan industrial area), while change in the existing framework of ideas or organizational structure is limited as much as possible.

Although incrementalism was praised as a realistic approach for decision makers, nevertheless one may argue that it is inadequate as a decision making strategy in the realm of environment. The ever-changing nature of environmental problems is not by itself amenable to the incremental frame of analysis. This is so because this changing nature and expanding scope of environmental issues requires both flexibility and creativity, two facts that disjointed incrementalism certainly is not equipped to handle.

Recognizing this, TCOE is moving from reacting to donor-driven projects to initiating its own projects, which may allow the office to deal with new problems. This step will be more effective if it is taken within a framework of strategic environmental planning, which will provide for a more comprehensive analysis of the problem.

#### NO EASY CHOICE: RISK ASSESSMENT AND ENVIRONMENTAL DECISION MAKING

One of the decision techniques or tools that is now used by the Egyptian Environmental Agency is environmental risk assessment. The process of risk assessment is very complex, requiring the cooperation of both scientists and politicians.

According to El Hinnawi,<sup>6</sup> risk assessment involves four processes: hazard identification, or the determination of whether exposure to an agent in the environment will lead to health problems; dose-response assessment, or the identification of relationships between the different dosages of an agent and its health effects; exposure assessment, or the measurement of



the intensity and frequency of human exposure to an agent; and risk characterization, estimating the health effect under exposure levels found in the exposure assessment.

Risk assessment, according to El Hinnawi,<sup>7</sup> is followed by risk management, in which the best practical technical option for dealing with the risk is determined. Following the choice of that option, its acceptability from social, ethical, legal, and political points of view is determined. Finally, once the option has been accepted it will be implemented.

This technique is now being used by the EEAA to confront one of Egypt's most serious problems, air pollution in the Helwan industrial area. Excessive dust emissions around the Helwan cement plant have caused serious damage to local residents. According to government sources, the daily average of airborne dust particles is 300 mg/l. This causes respiratory diseases in the community and threatens the life of the local residents. With the cooperation with TCOE and the donor community, EEAA is engaged in studies to identify the amount of risk involved from a purely scientific point of view. Then the agency moved into the process of risk management, in which the option of moving the factory out of Helwan was not acceptable from an economic and social point of view.

The best practical technical option that is acceptable socially and politically has been to provide the factory with filters that reduce the excessive dust.

The decision making technique used in cases like this helps move the decision closer to the rational ideal type. Nevertheless it has its own problems. First, there can be serious debates in the risk assessment process concerning causal relationships and probability calculations. Second, the risk management process assumes agreement on values and levels of acceptable risk. Finally, any scientific or philosophical differences can be used by concerned economic, political, or social actors to swing the decision making process in their favor. Nonetheless, this approach is an improvement over less consciously rational methods.

#### BUREAUCRATIC POLITICS AND ENVIRONMENTAL POLICY

The controversy in the derivation of the law is a vivid example of the bureaucratic politics model of decision making. According to this model, decision is the outcome of conflict and bargaining between officials, who have various objectives and conceptions of national, organizational and personal goals. Although those officials, or actors in the model, share power, they have different opinions regarding what should be done. Consequently, the decision making process reflects "pulling and hauling" between them, and

the decision itself is a result of the triumph of one group over the other or a compromise between the two.<sup>8</sup>

The Environmental Law touches on the areas of interest and domains of power of several ministries in the government. Realizing this fact it is easy to underline the conflictual pattern of interaction that took place within the committees of the parliament. This conflict was centered around procedure, content, and style.

In terms of procedure, there was a debate regarding which committee should be in charge of reviewing the law. On October 15, 1989, the government submitted two laws to the People's Assembly, one for the protection of the environment and the other to control air pollution. The speaker of the assembly sent the drafts to a joint committee that included the Committee on Health and Environment and the Committee on Legislation and Constitutional Affairs, to be examined or reviewed. On February 25, 1990, the speaker submitted to the joint committee another draft law to regulate marine pollution. The joint committee met on May 5 to discuss the drafts; nevertheless, it could not finalize its review because of the end of the legislative session.

On June 24, 1992, the chair of the Committee on Industry and Energy, Dr. Amin Moubarak, demanded that his committee be included in the review of the law, especially after receiving many complaints from the Ministries of Industry and Petroleum regarding some articles in the law.<sup>9</sup>

Although Dr. Hussein El Serafy, chair of the Committee on Health and Environment, did not formally reject the idea of including the Committee on Industry and Energy in the joint committee, he made it clear that it was the main responsibility of the former and if there are any other committees interested in the subject they could send a representative. He also clarified that his committee had been studying the law for two years and if there were anyone who would like to have a look at it in its final form they were more than welcome to but could not repeat the whole process of reviewing the law from the beginning.<sup>10</sup>

The members of the People's Assembly, on June 24, 1992, approved the Committee on Industry's request, and, on July 11, the chair of the Committee on Health and Environment sent a memo to the speaker of the assembly clarifying that, according to article 44 of the internal regulations of the assembly, laws or draft laws related to environmental protection are one of the main responsibilities of his committee. He also added that what the chair of the Committee on Industry asked for is also applicable for other committees: the Committee on Transportation, the Committee on Agriculture and Irrigation, the Committee on Defense and National Security, and the

Committee on Local Government. Therefore he asked that representatives of these committees be included in the joint committee that will review the law.

Finally, the assembly decided that the joint committee in charge of reviewing the law should include the Committee on Health and Environment and representatives of the following committees: Industry and Energy, Legislation and Constitutional Affairs, Agriculture and Irrigation, and Local Government. The conflict between committees reflected to a certain degree their perceptions of the issues. While the Committee on Health made the link between health and environment, thus perceiving the whole issue as being under its jurisdiction, the committees on industry, energy, and agriculture wanted to be represented in the committee reviewing the draft law so that they could prevent any decisions that may have conflicted with their interests.

In terms of style the Committee on Legislation and Constitutional Affairs requested that the three laws be combined into one draft law in order to avoid multiplicity of legislations. Consequently, in May 1992 the government submitted an integrated draft of the environmental law that covered marine pollution, air pollution, and environmental management.

Regarding the content of the law, the debate in the assembly centered around several issues. Egypt's problem lies in the lack of financial capability to implement laws. For instance, Abdul Hamid Ghazy, a member of the assembly, asked whether the ministers of finance and planning had participated in the formulation of the law so that they could share the responsibility of providing sufficient financial resources.<sup>11</sup> Dr. Edward Ghali El Dahaby, another member of the assembly who shared the same line of argument, stated that it was not beneficial to issue legislation that could not be implemented.<sup>12</sup> In contrast to this argument, the speaker of the assembly, although he acknowledged the rationale behind the argument, said that it was illogical not to draft laws because of the lack of resources.<sup>13</sup>

The assembly also debated the issue of enforcement. Members of the parliament questioned the ability of the government to enforce laws. In fact, M.P. Sabry Blal attacked the government's inability to enforce Law No. 48 of 1982 for the protection of the River Nile and questioned whether laws will be enforced on poor citizens only and not on powerful interest groups and government.<sup>14</sup>

To deal with the issue of enforcement, the drafters of the law initially insisted on imprisonment as a punishment to deter pollution. Nevertheless, officials in both the Ministry of Petroleum and the Ministry of Agriculture rejected the idea strongly. For example, the Ministry of Agriculture attacked article 34 of the draft law, which would have imprisoned anyone who pur-

posely caused harmful effects to humans, plants, animals, or waterways, whether directly or indirectly, while spraying pesticides for agriculture or public health purposes. The ministry demanded that a fine should replace imprisonment as the punishment for such an act. The Ministry of Agriculture led a media campaign against the law claiming that the environmental law will punish the farmers.<sup>15</sup> As a result, this article was ratified and imprisonment as a punishment was lifted.

In addition to the problems of enforcement and implementation, a great part of the debate was centered around the role of the Egyptian Environmental Agency and the authority given to the agency. For instance, the law in its original version intended to create a strong central environmental agency under the Prime Minister and it was given the title of "Central Environmental Agency" (CEA). It was envisioned that the newly created agency would be similar in power to Egypt's only three centralized agencies: The Central Agency for Public Mobilization and Statistics (CAPMAS), the Central Agency for Organization and Management, and the Central Agency for Accounting. During the discussions in the assembly, the notion of a Central Agency was rejected and the title was changed to the Environmental Protection Agency (EPA), a title that does not give an authoritative and strong image to the agency. Furthermore, it became clear that the agency would not be under the prime minister but under the minister of administrative development and environmental affairs. This reduction in the power of the agency was not enough for some members of the assembly, who questioned the new title of the body and argued that the word "protection" gives the notion that the agency will have executive power. Since they were reluctant to give the agency the power of execution they wanted to maintain the old title, the Environmental Affairs Agency.

Although the debate around the title of the agency might appear superficial, in reality it reflected power politics in the assembly and the fear on the part of some members, especially those who were representing the industry, oil, and tourism sectors, that the agency would reduce their own authority and interfere in their own domain.

A significant part of the debate in the People's Assembly was about Environmental Impact Assessment (EIA). The core questions in this regard were: Do we really need Environmental Impact Assessment? And if we need it who should supervise and review the EIA statements? The question of whether the law should include Environmental Impact Assessment touched on a deeper conflict, that between environmental protection and economic development.

According to developmentalists, the allocation of part of the budget to projects related to the environment, the setting of environmental standards,



and the insistence on environmental impact statements will hinder the industry, add more cost to production and drive investors away by red tape and bureaucracy. The trade-off between environmental protection and economic growth and the question of who will pay the cost of pollution control were salient features in the assembly discussions. Not only did they question the necessity of having Environmental Impact Assessment, but they also rejected any role for EEAA in this regard. Their argument went that EEAA should not set standards, grant permits and review and approve EIA statements because this would concentrate all the power in EEAA's hand and will allow the agency to interfere in their own work. Moreover, EEAA does not have the capacity to carry out such tasks.

According to Dr. Amin El Gamal, a breakthrough was achieved when Minister Atef Ebeid suggested that the administrative agencies in charge of granting operating permits will review the EIA statement submitted by the establishment owner and then send it to EEAA for approval.<sup>16</sup>

During the parliamentary debate, the environmentalists tried to mobilize their efforts to influence the outcome. For instance ENGOS lobbied for the law by issuing a declaration signed by twelve NGOs<sup>17</sup> that emphasized the importance of passing the law as a legal tool for the implementation of previous international treaties that Egypt had signed concerning the protection of the environment. They also argued that any delay in issuance of the law would damage the credibility of the Egyptian government and its sincerity in protecting the environment. Such a problem would, on the one hand, not conform to Egypt's image as a civilized country, and on the other hand, have a negative impact on the pattern of international cooperation between the Egyptian government and the donor countries. The ENGOS concluded their declaration by calling on President Mubarak to pledge his full support to the environmental law. They also called on the People's Assembly and the government to speed up the process of issuing the law so it could be implemented.<sup>18</sup>

Furthermore, officials concerned with the environment made use of their contacts with donor countries to urge them to use their influence to overcome the obstacles that delayed the passing of the law. Quick passage of an environmental law was welcomed by foreign donors, who wanted a formal commitment from the Egyptian Government before they would begin investing in environmental projects.

In retrospect, the decision making process reflects lack of prior coordination between governmental agencies and ministries. Unlike the discussion of "the unified tax law," in which the government appeared as a unified or monolithic actor and the prime minister himself led the campaign in the



assembly for the law. The deliberation of the Environmental Law revealed ministerial competition and conflicting vested interests.

One may also argue that the nature of the issue at stake affected the decision making mechanism. In the Unified Tax Law the issue at stake was the government's financial needs and desire to increase its revenue, a matter which will enhance the stability of the regime. Consequently, all of the government was mobilized to confront any opposition to the law, and consequently the law was passed after a few days. In the case of the Environmental Law, the issue at stake, environmental regulation and management, was not perceived as a critical issue by all cabinet members. In another way, environmental degradation was perceived as an important problem as long as it did not decrease the authority and power of any ministry.

The decision making environment contributed in shaping the outcome of the decision. Unlike the case in other countries, where public policy issues are combating field or war zone between both the executive and the legislative authorities,<sup>19</sup> the debate within the People's Assembly reflected one of the main characteristics of the Egyptian political system, which is the hegemony of the executive authority over the legislature. In fact the debate was mainly among the members of the ruling party and only eight members of the opposition took part in the discussion. Once an intergovernment agreement was reached, in no time the law was passed. Moreover, the political setting of Egypt, a country in its march towards democratization, reflects itself in the attempt to include new actors in the decision making process. For the first time, environmental NGOs were consulted in the formation of the law and they were called for public hearing sessions to testify for the necessity of the law. Also, they played an important role in lobbying for the law. Their lobbying tactics was also revealing of the nature of the political system. Instead of influencing members of the People's Assembly, they went directly and took their case to the most influential actor in the system, the president of the republic. Moreover, they attempted to influence foreign donors, whose role in environmental policy was perceived as crucial by both ENGOs and Egyptian officials. Interestingly enough, both attempted to push the donors to influence the legislation process and hasten passage of the law.

## Chapter 4

### Policy Assessment

Policy assessment or policy evaluation is an essential stage in policy analysis. There are several approaches in evaluating policies.<sup>1</sup> One of these approaches tends to emphasize the outcome of a certain policy and to what extent it is in congruent with the stated objectives of that policy. For instance, Peters<sup>2</sup> argues that policy evaluation should be based on identification of clear goals and measurement of the extent to which such goals have been attained. Another approach tends to focus on the impact of a certain policy, in so doing this approach tends to focus on impact assessment as a tool for policy evaluation. For example, according to Dye,<sup>3</sup> policy evaluation is concerned with assessing the impact or consequences of public policy. Recognizing the problems surrounding stated policy goals and the actual policy goals in the first approach and the methodological difficulties in measuring the impact of a certain policy of the second approach, Matthew Cahn developed a six-element index to evaluate policy success that addresses policy coverage, implementation, and outcomes.<sup>4</sup> In evaluating environmental policy in Egypt, I will use some of Cahn's indicators that are relevant to the Egyptian Society. Those indicators are as follows:

- To what extent does environmental policy treat environmental problems and regulations in an independent and comprehensive way?
- To what extent does policy encourage behavior changes both on corporate and individual levels?
- To what extent does policy employ rational strategic mechanisms to maximize compliance?
- To what extent does compliance help maximize implementation potential?
- To what extent have/will these policies result in the anticipated outcomes?

1. To what extent does environmental policy treat environmental problems and regulations in an interdependent and comprehensive way? The government of Egypt used to address problems related to the environment as independent problems. It also used to regulate these problems as sectoral ones such as water problems or air problems. Recently, with the creation of EEAA a new perception of the environment and the interdependency of its components has been established. Consequently, the environmental policy tends to emphasize this comprehensive multidisciplinary approach of environmental problems. This is clear in both the NEAP and the Law.

In both documents there are acknowledgements of this fact nevertheless no attempt has been made to spell out that interconnection between environmental problems as is apparent in the NEAP.

One can conclude that there is a moderate to high likelihood that the policy will succeed in treating environmental problems and regulations in an interdependent and comprehensive way. This is due to the emphasis given by the Environmental Agency in more recent reports<sup>5</sup> on integrating environmental aspects in development policies.

2. To what extent does the policy encourage behavioral changes? Both the National Environmental Action Plan and the Environmental Law encourage the development of environmentally friendly behavior by emphasizing the importance of environmental education, training, and awareness. With the help of the Ministry of Higher Education, environmental studies have been integrated into the curricula of basic, general, and technical education. Environmental Sciences have also been included in the curricula of different faculties of the Egyptian universities. Moreover, a lot of attention is now given to informal sources of education where the media, such as television programs, play an important role in creating environmental awareness. Although the Environmental Law No. 4 of 1994 gives the Egyptian Environmental Agency the authority to initiate environmental awareness campaigns with the help of the Ministry of Information, no such campaign has been developed yet.

The chairperson of EEAA recognized the importance of behavior changes and the introduction of environmental ethics. He has called for a "new culture" that is more conducive to environmental protection and has also said that he thinks that the participatory process by which NEAP and the Environmental Protection Law have been formulated was the first step toward enhancing that "new culture."<sup>6</sup> Recognizing that changing the individual's behavior is a long and tedious process, the Environmental Agency combined this long-term strategy with a short-term one. Economic incentives, penalties, and the adjustment period for corporations represent the tools

for this short-term strategy to modify behavior on the individual and collective level. But this stick and carrot approach cannot by itself maintain environmentally friendly behavior. Unless there will be strict enforcement for environmental laws and regulation, no short-term behavior change can be expected. Moreover, one of the main obstacles for inducing behavior change is the lack of alternatives. For instance, the individual may be fully aware of sources of water pollution, but if she/he does not have the proper alternative of clean water, so he will continue using polluted water. Also, the owners of factories may be aware of the negative impact of industrial waste on the environment. Nevertheless, the lack of both landfills and any agency to properly treat and transfer the waste to any sites that may be established will force these producers to release their industrial waste into the Nile River, and by so doing they will continue degrading the environment.

3. To what degree does environmental policy employ rational strategic mechanisms to maximize compliance? Non-compliance or the state's inability to enforce environmental requirements and regulations is one of the main problems that faces environmental policy. It is widely accepted in the literature that the traditional command and control methods have failed to bring about more compliance.<sup>7</sup> This component of Cahn's index assesses the degree to which the policy employs "innovative compliance strategies" rather than relying on command and control regulatory structures.

In Egypt, environmental policies do not rely mainly on command and control, but introduce other strategic mechanisms to maximize compliance. In fact, the analysis of the environmental law showed that emphasis has been put on economic incentives, setting standards, and the use of permitting. The executive regulations to implement the law, which are still under discussion, will identify regulated communities.

All of these strategic mechanisms to maximize compliance may be excellent on paper, but they still need the government's will to enforce them. Additionally, they involve further questions that must be answered to ensure adequate enforcement and a successful implementation phase. For instance, what kind of standards will be set (emission, ambient levels, etc.)? How realistic will these standards be for a developing country like Egypt? Who will administer the Environmental Impact Statements? Additionally, these non-traditional means of promoting compliance need non-traditional authorities to confront polluters and to prove that they are violating the standards.

4. To what extent does compliance help maximize implementation potential? According to Cahn, implementation is a crucial factor for the success or failure of any policy. The existence of great policy objectives or a



grand policy design cannot guarantee the success of a policy because all this can be destroyed in the implementation process, if the implementing agencies do not share the same objectives.<sup>8</sup>

The process of implementation was not emphasized in this research because, as was mentioned in the introduction, that the National Environmental Action Plan (NEAP) and the law for the protection of the environment have not been implemented yet. Nevertheless it is extremely important to not bypass this indicator of Cahn's index, because it deals with a core function of the Egyptian Environmental Agency (EEAA), the coordination function. How this is planned may or may not maximize implementation potential.

Based on the work of Mazmanian and Sabatier,<sup>9</sup> Cahn introduced the following six criteria for successful policy implementation:

- The policy provides clear and consistent policy objectives.
- Implementing agencies are sympathetic to policy goals and have adequate resources.
- Policy maximizes support by organized constituency groups and key legislators and executive agency personnel throughout the implementation process.
- Policy goals are not undermined by the emergence of conflicting policies.
- The policy provides implementing agencies adequate jurisdiction and leverage to attain desired goals.
- The management of implementing agencies possess adequate organizational and political skills and are committed to policy goals.

Four of the above criteria are relevant here, and lead one to argue that the Egyptian Environmental policy has a moderate likelihood of successful implementation. Although the National Action Plan and the National Report on Environment identify concrete goals, there are no timetables for meeting those goals.

Whether implementing agencies are sympathetic to policy goals and have adequate resources is very problematic and less clear. On one hand, environmental policy covers all aspects of development in Egypt and the Environmental Agency (EEAA) has developed plans and environmental strategies to be implemented by other ministries and agencies. On the other hand, there are sixteen ministries involved with environmental issues. It is not clear how sympathetic they will be toward the implementation of environmental projects planned by EEAA. As it is clear from previous parts of this



study, most of these ministries were against the creation of a strong EEAA and even with the new status given to the agency by Law No. 4 of 1994 and the inclusion of representatives of some of these ministries, there is still doubt about their sympathy towards the Environmental Agency, its policies and its ability to coordinate with them.

Also, it is still unclear whether the implementing ministries and agencies will go ahead with implementing environmental projects that might not be on their ministerial agendas.

The law gives EEAA the authority to implement pilot projects on behalf of some ministries, to test their usefulness before they are implemented by the ministries on large scale. Nevertheless, it is up to the ministries to decide to apply these pilot projects and to allocate the adequate resources for their implementation.

Clearly the policy maximizes constituent and key government support. The EEAA tried to build support for its policy by including members of related ministries in the formulation of the National Environmental Action Plan (NEAP) and in the discussion of the Environmental Law. Consequently, governors of some governorates as Cairo, Sharkeya, Giza, Aswan, and Ismailia are integrating environmental considerations into their governorates' plans. It is less clear what level of support will be given by other local government officials to the Environmental Agency and its policy. Also, although the policy tries to encourage the business community, the army and the police to be more supportive, their positions have not been clear either.

Policy goals are not undermined by conflicting policies. Although policy goals are clear and the agency is trying to coordinate between related ministries and agencies, it is still likely that some of these goals may be undermined by conflicting policies of those ministries and agencies. This is due to the lack of a common or prevailing view among decision makers on environmental issues. On the contrary, some decision makers and local government officials tend to see a contradiction between environmental protection policy and their own ministries' vested interests. Consequently environmental protection will not be integrated into their development policies. This will undermine environmental policy goals.

To what extent have/will these policies result in the anticipated outcomes? According to Cahn's index, "This component assesses the degree to which the policy has attained, or may be expected to attain, the stated goals."<sup>10</sup> Environmental policy in Egypt has all the elements for a successful policy. It encourages the cultivation of an environmental ethic and environment-friendly behavior which is a crucial factor for the success of any policy and at the same time the most difficult to achieve. The policy also advocates

non-traditional means of enforcing compliance which will encourage polluters to reduce emissions. But the expected problems of this policy lie in the state's questionable ability to enforce these laws and regulations. The lack of concrete analysis of how the policy may affect other policies and the lack of integration between the policy sectors may create unintended results. Finally, the problem of competing goals among several ministries and the EEAA may minimize the potential for effective implementation.

## Conclusion

Environmental policy making in Egypt is a dynamic and continuous process. It was initiated by the government, but within a very short time societal actors became directly involved in the policy making process. It is an area of domestic policy, but foreign actors had a significant role. The latter aspect is especially important, given the literature's emphasis on domestic factors alone.

First, it must be noted that domestic public activity was evident in the participation of some environmental NGOs in the formulation of the National Environmental Action Plan (NEAP), in the redrafting of the Law of Environmental Protection, and in lobbying for the law in the People's Assembly. Consequently one may argue that environmental policy making involves an interaction between the state and the society or more precisely between the state and specific segments of the society, i.e., those who became concerned with environmental issues and translated their concern into action by forming or joining environmental NGOs.

This participatory characteristic of environmental policy making reflects the nature of environmental problems and the perception within the EEAA that combating such problems needs more public participation. It also reflects the political setting or political environment of the policy process now found in Egypt. The inclusion of new actors like ENGOs goes with the democratic transformation that is beginning in Egypt. The ability of ENGOs to mobilize themselves, the creation of their elected steering committee, and their coordination with EEAA and TCOE may also present a model for other NGOs to follow. Nevertheless, one should not exaggerate the role of ENGOs in environmental policy making, because their "friendly coexistence"<sup>1</sup> with the state will only continue as long as the state does not feel it is neither threatened nor challenged by their activities. For instance, in the governorate of Alexandria, the pattern of relations between the local government officials and Friends of the Environment Association in Alexandria became a conflictual one, because the association challenged a governor's decision

and overruled him through a court decision. Moreover, ENGOs' ability to enhance their role in policy making will depend on their success in transforming themselves from elite groups to ones with grass-roots support.

The continuous role of the autonomous Egyptian state in the policy making process became more apparent when both the EEAA and TCOE moved away from donor-driven projects to initiate their own projects. The development of the three pillars of environmental policy, i.e., the institutional framework (EEAA), the legal framework (the environmental law), and the National Action Plan, is a step in the right direction. And even within this frame the Agency is moving, step by step, from the focus on project activities, with no clear comprehensive vision, to the development of a new philosophy that stresses coordination, participation, and integration. This philosophy needs to be routinized when the agency sets Egypt's environmental strategies if it is to avoid the lack of integration and coordination found in the National Environmental Action Plan.

Nevertheless, the ultimate success of the environmental policy depends on the ability of EEAA to implement and enforce environmental regulations, to coordinate with other ministries, in spite of its lack of real leverage and the conflictual atmosphere that it faces. It will also depend on the ability of the agency to strengthen the environmental movement and push for what the director of the agency called "a new culture" or environmental ethic, because behavioral change is a crucial factor for the success of this policy.

Most important, analyzing environmental policy making in Egypt sheds light on the role of external factors in public policy making, an element that is not well studied or focused on in the literature. Public policy literature originally came out of the study of American government, and consequently all attention was given to domestic institutions, the interaction between them, and the policy outcome of that interaction. When public policy became a popular field of study in the Third World, scholars followed the same research agenda set by Western scholars and focused on the same actors. Studying environmental policy making in Egypt brings the ignored factor, the role of external actors, to the agenda of public policy research. In fact foreign donors had both positive and negative impact on the policy making process.

The Egyptian case revealed that donor countries and agencies can play a positive role in some of the policy making processes, from policy initiation and agenda setting to policy formulation and decision making. The availability of international funds for environmental protection encouraged the government to put the issue on the agenda. In the formulation of the policy, the fingerprints of the World Bank were very clear on the final documents

and the role of the bank's experts was apparent. One may argue even further, and without falling in the unicity syndrome, that the influence of foreign donors went beyond the state level and reached to the civil society, where it fostered new patterns of public participation.

Regardless of these apparently positive effects, it is possible that, in the long run, the availability of funds for environmental protection and the donors' desire to strengthen the civil society and avoid governmental bureaucracy will create unintended negative effects. In reality they may corrupt the civil society and allow some people to create NGOs for the sake of the money alone, without any real cause or popular base. To avoid this, donor agencies need to strengthen the capacity of NGOs not only through financial assistance but more importantly through technical and training programs that help capacity building and allow NGOs to be a real asset to any policy.

This final point is especially worthy of future study. For now the case of Egyptian environmental policy makes clear that supportive external actors can combine with a willing state and indigenous NGOs to support relatively rapid and responsive changes in public policies.



## Appendix 1. Programs and projects initiated by TCOE with various donor agencies and nations

### DANIDA

- EEPA Organizational Support Program
- Environmental Education and Training Program
- Environmental Information and Monitoring (w/CIDA)
- Reference laboratories for standardization and quality assurance
- Institutional support of the environmental information center
- Integrated air pollution monitoring
- Integrated database on pollution sources and resource management
- Coastal water monitoring program
- Support program for environmental NGOs
- North Sinai Environmental Action Plan
- North Sinai Government Environmental Education and Public Awareness Support Program
- Aswan Environmental Action Plan
- Aswan Waste Water Project
- Industrial waste water project for Kom Ombo Sugar Factory, Aswan
- Industrial waste water project for Kima Fertilizers Factory, Aswan
- Coastal Zone Management Plan for the Mediterranean
- Establishment of shore-based oily water treatment facilities in Suez and Alexandria
- Updating of National Oil Spill Contingency Plan
- Pilot and demonstration projects for treatment and safe disposal of hazardous waste
- Pilot project for hospital management, Cairo

### ODA

- Capacity building in environmental impact assessment outside EEAA
- Capacity building in industrial auditing outside EEAA
- Assistance for Environmental Action Plan for Dakahleya
- Assistance For Environmental Action Plan for Sohag
- Demonstration projects in industrial pollution control, Sohag and Dakahleya
- Demonstration projects in solid waste management, Sohag and Dakahleya
- Creation of an environmental database

### SIDA

- Sector study and environmental upgrading of two industrial sectors
- Industrial Energy Conservation Fund
- Reduction of air pollution from lead smelters in greater Cairo
- Environmental education and awareness

Improvement of solid waste management

Switzerland

Hazardous substance and material information handling system

JICA

Industrial waste water pollution abatement project for major industries of Kafr El Zayat

Regional environmental research and training center Italy

Afforestation project for protection of new graduates' lands

Afforestation project for protection of old lands

Integrated agricultural development program for the northwest coast of Egypt

Artwork restoration in Al-Ghuriya and hanging church

Establishment of a National Centre for Archeological Preservation and Restoration

Site management plan for the area of Luxor

Site management plan for the city of Rachid

Program for surveying and cataloguing the Egyptian monuments

Agricultural water resource planning

CIDA

Environmental upgrading of selected industrial sectors

Pollution abatement from tanneries

Reuse of waste water and sludge in greater Cairo

Demonstration projects in low-cost waste water treatment technology

Rural water supply and sanitation in selected governorates

Pollution abatement of selected agricultural drains

Preparation of a national land use plan

Implementation of an integrated management plan in Siwa Oasis

Desertification prevention on the land reclamation project (New Graduates' land)

TCOE cofinancing

Environmental fund

NGO support

European Community

RAS Mohammed National Park

Integrated management plan and implementation for St. Catherine protected area

Oil pollution combating emergency center at the entrance of the Gulf of Aqaba

Management project in Lake Bardawil

USAID

Automobile tune-up program

## Appendix 2. Environmental NGOs included in the study

African Society  
 Arab Office for Youth and Environment  
 Art and Society Group  
 Association for Protection of the Environment  
 "Baladi" Society  
 Egyptian Red Crescent Society  
 Egyptian Society for the Development of Local Communities  
 Egyptian Youth Society for Development and the Environment  
 Friends of the Environment and Development Association  
 Friends of the Environment and Development Association, Alexandria  
 "Friends of the People" Society  
 "Khadra" Society for Development and Protection of the Environment  
 National Association for Protection of the Environment  
 National Society for Protection of the Environment, Qalubiya  
 Scientific Association for Arab Women  
 Society for Environmental Protection: "Friends of the Environment"  
 Society for Pollution Prevention and Environmental Protection (Beheira)  
 Society for Preservation of the Environment in Fayoum  
 Society for the Preservation of Nature  
 Society for Protection of the Environment in Assyout  
 Society for Protection of the Environment and Resources  
 Society for Protection of the Environment in Suez  
 Arab Organization for Human Rights  
 Association for Development of Services at Heliopolis  
 Community Service Society, Azbakeya  
 Egyptian Association for Health and Environmental Legislation  
 Egyptian Association for Industry and the Environment, Alexandria  
 Egyptian Packing and Development Association  
 Egyptian Society for Zoology  
 Egyptian Society for Zoonoses  
 Egyptian Society for Solar Energy  
 Egyptian Wildlife Society  
 El-Fath Society for Environmental Development, Suez  
 "Friends of Marine Life" Society  
 Integrated Rural Technology Center for Training and Production, Sharqiya  
 Productive Cooperative of Basaisa, Sharqiya  
 Society for Arts and Islamic Antiquities  
 Society for Beautification and Improvement of the Environment in Tanta

Society for Development of Services at Zamalek  
Society for Health and Environmental Development  
Society for Urban Development in Islamic Cairo  
Tree Lovers Society  
African Mutagen Society  
Arab Society for the History of Pharmacology  
Egyptian Botanical Society  
Egyptian Society for Behavioral Medicine  
Egyptian Society for Bio-Anthropological Sciences  
Egyptian Society for Community Medicine  
Egyptian Society for Earth Sciences  
Egyptian Society for Entomology  
Egyptian Society for Hereditary Sciences  
Egyptian Society for Marine Sciences and Technology  
Egyptian Society for Nutrition  
Egyptian Society for Occupational Medicine  
Egyptian Society for Pest Control and Environmental Protection  
Egyptian Society for Poultry Sciences  
Egyptian Society for Preservation of Natural Resources  
Egyptian Society for Toxicology  
General Society for Prevention of Bilharzia and Endemic Diseases  
National Society for Technological and Economic Development  
Society for Nutritional Science and Technology  
Society for Plant Pathology

### Appendix 3. Unemployment rates, 1986 (%)

Total	10.7
Female	24.5
Children 6-14	2.0
Youth 15-24	30.3
Urban	12.4
Rural	9.2

#### Educational level:

Below secondary education	3.1
Secondary	27.8
University	26.7

#### Future labor force replacement ratio:

Total	234.0
Urban	200.0
Rural	264.0

Sources: Egypt Human Development Report, 1994; National Human Development Indicators.



## Appendix 4. Income distribution and poverty, 1990

Income per capita (US\$)		699.0
Income share of lowest 40%	Total	19.7
	Rural	22.8
Ratio of highest 20% to lowest 20%	Total	5.6
	Rural	4.2
Gini coefficient	Total	0.36
	Rural	0.030
Poor persons (% of total population)		33.9
Ultra poor (% of total population)		7.6
Wages of poor households	% of income	50.1
	% of total wages	17.6
% of total public expenditures spent on:	Education	9.8
	Health	2.8
	Social security	4.6
	Defense, justice, and police	10.9
Public expenditures on education (% GDP)		3.9
Public expenditure on health (% GDP)		1.1
Social security benefits (% GDP)		1.8
Public expenditures on defense, justice, and police (% GDP)		4.4

Sources: Egypt Human Development Report, 1994; National Human Development Indicators.

## Appendix 5. Urbanization

Urban population (% of total)	1960	38.0
	1976	43.8
	1986	44.0
Urban population annual growth rate %	1960-76	3.0
	1976-86	2.8
Population of largest city (% of total urban)	1960	34.4
	1976	31.6
	1986	28.6
Persons per habitable room	1986	1.5
Houses with electricity (%)	1986	96.0

## Appendix 6. Demographic profile

Population (thousands)	1960	25,984
	1986	48,254
	2001	67,923
Annual population growth rates (%)	1960–86	2.4
	1986–2001	2.4
Population doubling date (at current rate)		2022
Total fertility rate	1991	4.1
Ratio of 1991 fertility to 1960 (%)		66.0
Contraceptive prevalence (%)	1988	37.8
	1991	47.6
Demographic dependency ratio (%)	1986	77.0
Population density (per km)	1990	48.0

Sources: Egypt Human Development Report, 1994; National Human Development Indicators.

## Appendix 7. Natural resources

Land area (thousand km <sup>2</sup> )	1990	997.7
Cultivated area:		
Thousand feddans	1990	6,918.0
% of land area		2.9
Persons per feddan		8.0
Irrigated land (% of arable land area)	1990	100.0
Third and fourth grade lands (% of cultivated area)	1990	49.0
Scarping lands (% of cultivated area)	1990	0.1
Land losses (% of cultivated area)	1975	0.5
Ratio of crop to cultivated lands	1990	1.76
Total water resources (billion m <sup>3</sup> )	1990	60.1
Water consumption (% of total water resources)	1990	97.0
Internal renewable water (% of total water resources)	1992	94.0
Per capita internal renewable water (m <sup>3</sup> /year)	1992	979.0
% of water withdrawals by		
Agriculture	1992	84.0
Municipal	1992	5.0
Industrial	1992	8.0
Navigation	1992	3.0
Total fish catch (thousand tons)		295.2
% of fish catch from:		
Fresh water (Nile and Lake Nasser)	1990	23.0
Marine (Mediterranean and Red sea)	1990	21.0
Other lakes	1990	42.0
Aquaculture	1990	14.0

Sources: Egypt Human Development Report, 1994; National Human Development Indicators.

## Appendix 8. Health profile

Population with access to:			
Health services (%)	Urban	1990	100.0
	Rural	1990	99.0
Safe water (%)	Total	1986	98.6
	Public network	1986	70.0
	Other	1986	28.6
Sanitation (%)	Total	1991	94.7
	Public network	1991	33.5
	Other	1991	61.2
Doctors per 10,000 people (MOH)		1982	5.4
		1992	7.9
Nurses per 10,000 people (MOH)		1982	9.1
		1992	10.5
Nurse/doctor ratio (%) (MOH)		1982	169.0
		1992	133.0
Maternal mortality rate (per 1,000,000 live births)		1992	184.0
Beds per 10,000 people		1992	20.0
Health units per 100,000 people	Total	1992	12.0
	MOH	1992	2.8
Public expenditure on health		1992	2.8
	% of total	1990	2.8
	% of GDP	1990	1.1

Sources: Egypt Human Development Report, 1994; National Human Development Indicators.



## Appendix 9. Education flows

		Total	Female
Primary intake rate (%)	1960	68.6	57.4
	1990	96.1	89.2
Primary ratio (gross %)	1960	61.3	49.0
	1990	97.2	89.2
Primary repeaters (% of primary)	1990	8.2	
Transition to preparatory (% of primary completers)	1990	99.0	
Preparatory ratio (gross %)	1960	17.2	10.1
	1990	78.8	70.8
Preparatory repeaters (% of preparatory)	1990	19.9	
Transition to secondary (% of preparatory completers)	1990	92.0	
Secondary ratio (gross %)	1960	17.1	8.4
	1990	52.0	45.9
Secondary repeaters (% of secondary)	1990	11.9	
Tertiary ratio (%)	1960	9.5	3.3
	1990	18.1	9.2

Sources: Egypt Human Development Report, 1994; National Human Development Indicators.

## Appendix 10. Education imbalances, 1990

Primary pupil/teacher rate		24.8
Preparatory pupil/teacher rate		22.1
Class density	Primary	44.0
	Preparatory	43.0
Secondary technical (% of total secondary)		61.0
Tertiary science (% of total tertiary)		25.9
Public expenditure on education (% of total)		9.8
Public expenditure on education (% of GDP)		3.9
Public expenditure on pre-university education (% of all levels)		57.2
Public expenditure on higher education (% of all levels)		35.3
Public expenditure on Al Azhar education		7.5
% of basic and secondary students in	Govt. schools	90.0
	Private schools	5.0
	El Azhar schools	5.0
	Total	40.0
	Completely unfit	7.0
% of unfit school buildings (1992)	Partially unfit	13.0
	Maintenance	20.0

Sources: Egypt Human Development Report, 1994; National Human Development Indicators.

## Appendix 11. Communication profile

Televisions (per 1,000 households)	Total	1986	730
	Rural	1986	585
Daily newspaper circulation (per 1,000 people)		1991	34
Telephones (per 1,000 households)		1990	129
Average number of people served by one post office		1990	5,859
Annual cinema attendances (per 1,000 people)		1989	523
Annual theater attendances (per 1,000 people)		1989	17
Annual museum attendances (per 1,000 people)		1990	99
Library books (per 1,000 people)		1988	170
Passenger cars (per 1,000 people)		1988	21

## Appendix 12. Labor force

Labor force 6+ (% of total population)		1976	30.4
		1986	27.8
% females in the labor force		1976	8.9
		1986	10.9
% of labor force 6+ in:	Agriculture	1976	43.8
		1986	35.7
	Industry	1976	16.4
		1986	18.2
	Services	1976	39.8
		1986	46.1
Wage earners (% of the labor force 6+)		1976	59.5
		1986	58.4
Professionals and technicians (% of labor force 15+)		1976	7.5
		1986	11.8

Sources: Egypt Human Development Report, 1994; National Human Development Indicators.

## Appendix 13. Energy consumption

Total commercial energy consumption (billion kg of oil equivalent)	1960	4.8
	1990	30.4
Commercial energy consumption per capita (kg of oil equivalent)	1960	184.0
	1990	578.0
Annual rate of change in commercial energy consumption (%)	1960-70	4.3
	1980-90	6.4
% of commercial energy consumption from:		
Oil products	1960	100.0
	1990	67.0
Natural gas	1960	0.0
	1990	24.0
Hydropower	1960	0.0
	1990	9.0
% of commercial energy consumed by: Industry	1989	48.0
Transportation	1989	21.0
Agriculture	1989	2.0
Households and commercial	1989	24.0
Other	1989	5.0
Commercial energy consumed in kg of oil equivalent per LE 1,000 of GDP	1990	262.0

Sources: Egypt Human Development Report, 1994; National Human Development Indicators.



## Appendix 14. Food security

Food production per capita index (1979–81 = 100)	1990	122.0
Agricultural production (% of GDP)	1990	17.6
Daily calorie per capita	1976	3,340.0
	1986	3,501.0
Daily calorie supply (% of requirements)	1986	138.0
Shares in daily calorie per capita (%): Vegetable products	1976	93.6
	1986	94.2
Animal products	1976	6.1
	1986	5.8
Food aid in cereals (1,000 metric tons)	1990	1,525.0
Cereal imports (1,000 metric tons)	1990	6,707.0
Food exports (% of food imports)	1990	7.3
Food imports (% of merchandise exports)	1990	79.4
Food self-sufficiency ratio	1990	79.3
Food import dependency ratio	1990	22.3

Sources: Egypt Human Development Report, 1994; National Human Development Indicators.

## Appendix 15. Resource flow imbalances, 1990

Total civil external debt (% of GNP)	83.4
Civil external debt service ratio (% of exports)	13.8
Workers' remittances from abroad (LE millions)	11,204.0
Export/import ratio (%)	71.9
Trade dependency (exports plus imports as % of GDP)	61.1
Current account balance (LE millions)	11,854.0
Gross international reserves including gold:	
US\$ millions	4,512.0
Months of import coverage	4.5

Sources: Egypt Human Development Report, 1994; National Human Development Indicators.

## Appendix 16. National income accounts

	1990/91	1991/92
Total GDP at current market prices (LE millions)	115,840.0	141,648.0
Agriculture product (% of GDP)	17.6	16.5
Industrial product (% of GDP)	33.2	34.0
Service (% of GDP)	49.2	49.5
Private consumption (% of GDP)	76.7	81.5
Government consumption (% of GDP)	9.5	8.6
Gross domestic investment (% of GDP)	21.4	17.4
Gross domestic savings (% of GDP)	13.8	9.9
Tax revenue (% of GDP)	13.8	17.5
Central government expenditure (% of GDP)	9.5	
Exports (% of GDP)	26.7	28.3
Imports (% of GDP)	34.4	35.8

Sources: Egypt Human Development Report, 1994; National Human Development Indicators.

## Appendix 17. Economic performance

GDP at constant (1981/82) factor cost (LE millions)	1981/82 1991/92	20,628.0 34,028.0
Annual growth rate of real GDP (%)	1981/82-1991/92	5.1
Annual growth rate per capita GDP (%)	1981/82-1991/92	2.2
Annual growth rate of GNP (%)	1981/82-1991/92	5.5
Annual growth rate of per capita GNP (%)	1981/82-1991/92	2.5
Consumer price index (1981/82 = 100)	1991/92	513.5
Annual growth rate of consumer price index (%)	1981/82-1991/92	17.8
Wholesale price index (1981/82 = 100)	1991/92	486.9
Annual growth rate of wholesale price index (%)	1981/82-1991/92	17.2
Annual growth rate of exports	1981/82-1991/92	-0.8
Annual growth rate of tax revenue	1981/82-1991/92	2.6
Direct taxes as % of total taxes	1981/82 1991/92	33.9 40.2
Overall budget surplus (deficit) as % of GNP at market prices	1981/82 1991/92	-18.4 -9.2

Source: Egypt Human Development Report, 1994; National Human Development Indicators.





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